

Sgt E. D. Sorenson

FM 21-30

WAR DEPARTMENT BASIC FIELD MANUAL

CONVENTIONAL SIGNS, MILITARY SYMBOLS, AND ABBREVIATIONS

WAR DEPARTMENT + OCTOBER 1943

BASIC FIELD MANUAL

CONVENTIONAL SIGNS, MILITARY SYMBOLS, AND ABBREVIATIONS

CHANGES }
No. 3 }

WAR DEPARTMENT
Washington 25, D. C., 28 February 1945

FM 21-30, 15 October 1943, is changed as follows:

Part IV (Added) Photo Interpretation Symbols

Chapter 11 List of Photo Interpretation Symbols

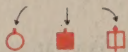
31. GENERAL. The symbols listed in this chapter are prescribed for use in photographic interpretations. They have been approved for joint use of the Army and Navy. These symbols are used in the annotation of aerial photographs and the preparation of overlays, reports, terrain models, and sketches from aerial photographic interpretation information.

32. ADDITIONAL SYMBOLS. When symbols listed herein or combinations thereof do not give complete information, supplementary notations should be added. In special cases where no symbols can be found that apply, improvised symbols may be used provided they are explained in the legend and do not conflict with authorized symbols.

33. SIZE OF SYMBOLS. The size of photo interpretation symbols shall be consistent with the scale of the finished material.

34. DIRECTIONS FOR ANNOTATION.

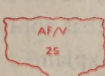
a. Location of weapon and emplacement symbols.

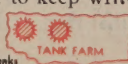
The "gun" axis of weapon and emplacement symbols indicates their direction of fire and shall be considered as the top of the symbol. 

Where possible, the center of the base of the symbol is the exact location of the indicated weapon, or emplacement. 

Where the scale of a photograph is such that one symbol is used to denote a battery position containing several weapons, the symbol will encompass the entire area concerned and will have a numerical indication of the number of weapons involved. 

In some instances, the density of defenses will necessitate a "pointer" line being drawn from the symbol to the exact location of the indicated weapon. 

Certain symbols designate areas rather than pin points—in which case they indicate the boundaries concerned. 

Combinations of symbols are encouraged in order to keep written annotations to a minimum. 
Buried tanks in tank farm

b. Material index.

If the type of material utilized in the construction of an emplacement or obstacle can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.

C	— CONCRETE
M	— MASONRY
S	— STEEL
L	— LOG
W	— WOOD
E	— EARTH

c. Annotation colors.

Cultural	BLACK
Plant growth.....	GREEN
Topography	BROWN
Hydrography.....	BLUE
Defenses	RED
d. Unidentified	(?)

35. WEAPONS.

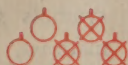
a. General.

Caliber (numeral on left side of appropriate gun symbol indicates caliber of piece in millimeters) 

Battery, with number of guns (numeral on right side of appropriate gun symbol indicates number of pieces in battery) 

Emplaced weapons—See paragraph 32.

Weapon or emplacement, destroyed.....



Weapon, dummy.....



Weapon, doubtful....



b. Antiaircraft.

Heavy (75-mm. and over)



Automatic (13.2-40-mm.)



Twin mount.....



Triple mount.....



Machine gun (6.5-7.7-mm.)



Dual-purpose, ...



Self-propelled (heavy).



Railway (heavy).....



Ship



Tower



c. Antitank.

Heavy (over 75-mm.).



Medium (50-75-mm.).



Light (less than 50-mm.)



Self-propelled (heavy).



d. Coast defense.

Superheavy (over 240-mm.)



Heavy (over 175-mm.).



Medium (105-175-mm.)



Light (less than 105-mm.)



Howitzer, superheavy (over 240-mm.)



Howitzer, heavy (over 175-mm.)



Howitzer, medium (120-175-mm.)



Howitzer, light (less than 120-mm.)



e. Field artillery.

Heavy (over 175-mm.).



Medium (105-175-mm.)



Light (less than 105-mm.)



Howitzer, heavy (over 175-mm.)



Howitzer, medium (120-175-mm.)



Howitzer, light (less than 120-mm.)



Self-propelled (heavy).



f. Railway artillery.

Railway gun.....



Railway gun on turntable.....



g. Infantry weapons.

Machine gun, heavy... 

Machine gun, light... 

Machine gun, field of fire... 

Mortar (annotate size) . 

Mortar, barrage (annotate size) 

Rocket projector, single (annotate size) 

Rocket projector, multiple (annotate size) .. 

h. Vehicles.

Vehicle, animal drawn. 

Vehicle, armored 

Vehicle, motor 

36. EMPLACEMENTS.

If the type of material utilized in the construction of the emplacement can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.

Emplacement, unoccupied 

Emplacement, covered.. 

Example—4-gun,
240-mm. heavy coast
defense battery in
covered concrete
emplacements



Fire control center.... 

Fire control, radar... 

Fire control, visual.... 

Foxhole (if in quantity,
outline area and an-
notate: Foxholes) ... 

Observation post..... 

Observation post,
artillery..... 

Observation tower..... 

Pillbox (axis of gun
indicates direction
of fire. Show size of
gun if known.).... 

Bunker..... 

Casemate or blockhouse.. 

Sniper post 

Personnel shelter, above
ground..... 

Personnel shelter, below
ground..... 

Strong point..... 

Trench, communica-
tion..... 

Trench (with firing
bays) 

Trench, fire..... 

Weapons pit (infantry) 

37. OBSTACLES.

If the type of material utilized in the construction of the obstacle can be determined, the appropriate "MATERIAL INDEX" will be added beneath the symbol.

a. Obstacles, land.

Antitank barrier . . . 
c

Antitank ditch 

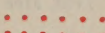
Antitank ditch, covered 

Barrage balloon . . . 

Demolition charge . . 

Obstacles, fixed . . . 
c

Obstacles, movable . . 
s

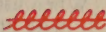
Stakes (plot position) 

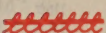
Road block, demolition 

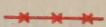
Road block, partial . . 

Road block, total . . . 

Wire, broad area (base of symbol indicates location of first strand. Depth of zone, in feet, is indicated by numerals) . . . 
12
xxxxxxx

Wire, concertina, single 

Wire, concertina, double 

Wire, single-fence . . 

Wire, double-fence . . 

Mines 

Mine field gap 

Mined area, land . . . 

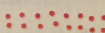
b. Obstacles, underwater.

Mined area, water . . 

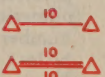
Obstacle, large fixed 

Tetrahedron, ramp, or hedgehog, fixed 

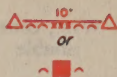
Tetrahedron, ramp, or hedgehog, movable 

Stakes, piles, or rails (plotted by position) 

Tetrahedron, ramp or hedgehog, fixed (in line—numeral indicates number of tetrahedra, etc., between precisely located points) . . 

Tetrahedron, ramp or hedgehog, movable (in multiple rows, show by line) 
10
10
10

When used with wire or mines, use proper symbols, use "MATERIAL INDEX" where known.....



Stores, area (area of stores to be included in a solid ring)

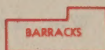


Ammunition

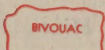


38. MILITARY AREAS.

Barracks area.....



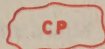
Bivouac area



Command post.....



Command post area.....



Military occupation.....



New construction..



Park, armored (outline area, indicate type where possible, and show numerically the number of vehicles)



Park, engineer equipment (outline area and indicate type where possible)



Park, motor (outline area, indicate type where possible, and show numerically the number of vehicles)



Park, ordnance (outline area, indicate type where possible, and show numerically the number of vehicles)



Buried



Coal.....



Engineer



Chemical



Loose



Lumber.....



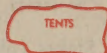
Oil or gas.....



Water



Tent, area.....



Tent.....



39. TERRAIN FEATURES.

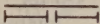
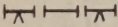
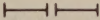
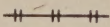
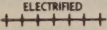
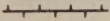
a. Installations (cultural).

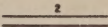
Blast wall (line conforms to shape of installation protected)

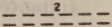


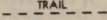
Retaining wall.....

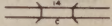


Building.....	
Building, buried ...	
Building, dug-in ...	
Building, revetted ...	
Building, under construction.....	
Cable	
Cable, buried.....	
Cemetery	
Church.....	
Excavation.....	
Hospital.....	
Pipe line, buried...	
Pipe line, overhead.	
Pipe line, surface...	
Railroad, double-track.....	
Railroad, electrified.	
Railroad, narrow gauge	
Railroad, single-track.....	

Road, primary (show number of lanes in figures.
Minimum width of 1 lane is 8 feet)..... 

Road, secondary (show number of lanes in figures.
Minimum width of 1 lane is 8 feet)..... 

Path or trail..... 

Bridge, indicate width in feet and constructional material by "MATERIAL INDEX"..... 

Bridge, out..... 

Bridge, ponton..... 

For engineer classification of roads and bridges, see paragraphs 25a, b, and c, pp. 47 through 49.

School..... 

Stone fence..... 

Tank, buried..... 

Tank farm..... 

Tank, fuel..... 

Tank, gasometer... 

Tank, water..... 

Tower, unspecified
or obstruction . . .



Tower, water



Underground
entrance



Well derrick



Windmill



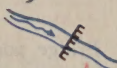
Canal



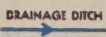
Culvert



Dam



Drainage ditch



Flood gate



Lock



Lock, double



b. Topography.

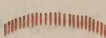
Cliff



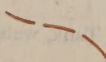
Cliff, rocky



Slope



Ridge line



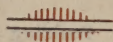
Sand dunes



Cut



Fill



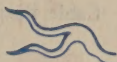
Lake



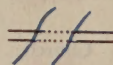
Lake, dry



River or stream



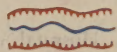
Ford



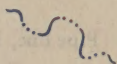
Direction of flow . . .



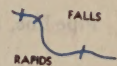
Stream, bed



Stream,
intermittent



Falls or rapids



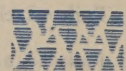
Well



Spring



Tidal flats



Inundated (over-
flowed land)



c. Vegetation.

Area of specific
vegetative type
(on photo-
graphs)



Brush



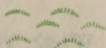
Coniferous forest..



Deciduous forest...



Grassland



Hedges



Mangrove



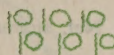
Orchard or
plantation



Palms



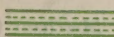
Rain forest or
jungle



Rice field



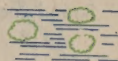
Sugarcane



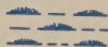
Stump land



Swamp forest



Swamp or marsh...



Tree



NOTE.—Areas containing the
above, or other, types of vege-
tation should be outlined and
annotated with the type indi-
cated.

40. ELECTRONICS.

Direction finder



Power station



Power transmission
line (obstruc-
tion)



Power transmission
line (not ob-
struction)



Radar



Radio navigational aid.



Radio station



Radio transmitter

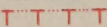


Searchlight



Searchlight, radar-
controlled



Sound locator.....	
Tower, control.....	
Tower, light.....	
Tower, radio.....	
Tower, signal.....	
Telephone or telegraph line ...	
Transformer station...	
Weather station.....	

41. NAVAL AND HYDROGRAPHY.

a. Naval.

ANCHORAGES:

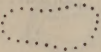
Ship.....	
Ship, emergency.....	
Ship with complete facilities	

BUOYS AND LIGHTS:

Buoy, bell, etc.	
Buoy, lighted.....	
Buoy, unspecified.....	

Lightship.....	
Light, unspecified.....	
Crane.....	

DANGERS:

Danger, area.....	
Rock, awash.....	
Rock, sunk.....	
Wreck, awash.....	
Wreck, sunk.....	
Dredge.....	
Drydock.....	
Drydock, floating..	
Marine railway....	
Net, submarine....	
Net, torpedo.....	
VESSELS:	
Merchant (indicate type by "JMST" code designation. See PI Handbook).....	

Naval (indicate type by standard U. S. Navy designation. See PI handbook)



b. Beach studies and depth determination.

BEACHES:

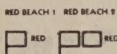
Location and extent .



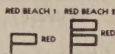
Gradient (slope) . .



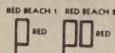
Center



Left flank (from sea)

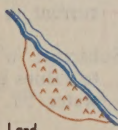


Right flank (from sea)

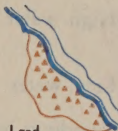


BEACH MATERIAL:

Block or boulder . . .



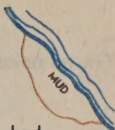
Gravel or cobble . . .



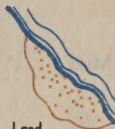
Kelp or seaweed . . .



Mud or silt



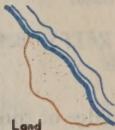
Pebble



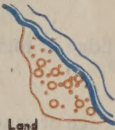
Bed rock



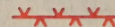
Sand



Shingle



Sea wall (see also "OBSTACLES, UNDER-WATER")



c. Offshore.

BOTTOM MATERIAL (use same designations as for "BEACH MATERIAL"):

Block or boulder . . .

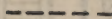


Shingle



Gravel or cobble . . .		Flood	
Kelp or seaweed . . .		General	
d. Wave and surf symbols for depth determination.			
Mud		Wave length	L
Pebble		Distance of outermost breakers from datum line	L _b
Rock		Wave period	P
Sand		Wave velocity	C
REEFS, BARS, AND SHOALS:			
Edge of coral reef . .		Wave height (trough to crest)	H
Edge of rock reef . .		Angle of wave crest with bottom contours	α (alpha)
Edge of sand bar . .		Angle of breakers with beach	D
Sand bar, exposed (above datum) . .		Velocity of longshore current in knots	C _L
Sand bar, unexposed (below datum) . .		Subscript "o" reflects to values in deep water	^o Example - C _o
Coral head, area . .		High water datum	<u>HIGH HIGH WATER</u>
Coral head, isolated . .		Low water datum	<u>LOW LOW WATER</u>
TIDES AND CURRENTS:			
Ebb, KN—Speed of current in knots . .		Soundings in fathoms	⑥
		Soundings in feet	⑥
		Contours, hydrographic	③....

Critical line special purposes

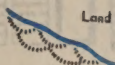


Seaplane base, complete facilities



WAVE AND SURF CONDITIONS:

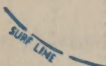
Breakers



Seaplane base, refueling facilities



Surf line



Seaplane anchorage, no facilities



Seaplane, ramp



NOTE.—Additional symbols and abbreviations for hydrographic designations should conform to those published in H. O. No. 8.

42. AIR FIELDS AND SEAPLANE BASES.

Aircraft



Aircraft, damaged



Aircraft, dummy



Aircraft, revetment



Aircraft, revetment under construction



Aircraft, shelter



Airfield, complete facilities



Airfield, refueling facilities



Landing ground, no facilities



43. DAMAGE ASSESSMENT.

a. Bomb plot.

Single bomb certain, with crater



Single bomb certain, no crater



Single bomb probable, no crater



One or more bombs certain in vicinity of arrowhead



One or more bombs probable in vicinity of arrowhead



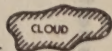
Bomb burst, area of fragmentation



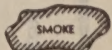
Fire location



Cloud obscured



Smoke obscured



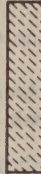
Line of flight



Nadir point



14 b. Damage assessment : For overlays.

Agent	Structural	Good Cover Only Superficial	Roof Disturbance	Medium and Poor Cover and 1st Phase
H. E. alone.....				
H. E. plus fire.....				
Fire alone.....				
Doubtful.....				
Prior damage from earlier raids.....	{ Damage not repaired.....			
	{ Damage repaired.....			
c. Repair studies : For overlays.	{ New buildings.....			
Construction completed.....	{ Superficial repairs.....			
	{ Structural repairs.....			
Construction in progress.....	{ Repair of damaged areas.....			
	{ New buildings.....			
Least activity.....	{ Damage cleared (possible preparation for repairs) ..			
	{ Site cleared or no action.....			

d. Damage assessment : For photographs (color index).

NOTE.—Symbols are similar to those used on overlays with differentiation by color.

H. E. alone.....	GREEN
H. E. plus fire.....	PURPLE
Fire alone.....	RED
Doubtful.....	YELLOW

e. Repair studies : For photographs (color index).

NOTE.—Symbols: Outline for clearance completed, cross hatch for repairs in progress, solid for repairs completed.

To structural damage.....	PURPLE
To superficial damage.....	GREEN
To roof disturbance.....	YELLOW
First aid repairs.....	BLUE
New buildings.....	RED
Condition of area or site (clearance or no action)	BLACK

[AG 300.7 (14 Feb 45)]

BY ORDER OF THE SECRETARY OF WAR:

OFFICIAL:

J. A. ULIO

Major General

The Adjutant General

G. C. MARSHALL

Chief of Staff

GREEN
PURPLE
RED
YELLOW

PURPLE
GREEN
YELLOW
BLUE
RED
BLACK

O. C. MARSHALL

Chief of Police

San Francisco

California

U. S. DEPARTMENT OF JUSTICE

WASHINGTON, D. C.

WAR DEPARTMENT BASIC FIELD MANUAL

FM 21-30

CONVENTIONAL SIGNS, MILITARY SYMBOLS, AND ABBREVIATIONS

This manual supersedes FM 21-30, 26 November 1941,
including C 1, 9 May 1942, and C 2, 27 July 1942.



WAR DEPARTMENT • OCTOBER 1943

UNITED STATES GOVERNMENT PRINTING OFFICE
WASHINGTON : 1943

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington, D. C. - Price 5 cents

WAR DEPARTMENT,
WASHINGTON 25, D. C., 15 October 1943.

FM 21-30, Conventional Signs, Military Symbols, and Abbreviations, is published for the information and guidance of all concerned.

[A. G. 300.7 (21 May 43).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

B and H (5); R (10); Bn (5), 1 (10); C (10).
(For explanation of symbols see FM 21-6.)

TABLE OF CONTENTS

PART I. General Mapping.	Paragraphs	Page
CHAPTER 1. General.....	1-6	1
CHAPTER 2. Primary topographic symbols.....	7	4
CHAPTER 3. Hydrography.....	8	12
CHAPTER 4. Aeronautical chart symbols.....	9	17
CHAPTER 5. Works of man.....	10	21
CHAPTER 6. General mapping abbreviations.		
SECTION I. Topographic abbreviations.....	11	28
II. Abbreviations used with hydro- graphic symbols.....	12-20	30
PART II. Military mapping symbols.		
CHAPTER 7. Military units.....	21-22	36
CHAPTER 8. Military activities.....	23-25	39
CHAPTER 9. Illustrations of military symbols.....	26-27	62
PART III. Military abbreviations.		
CHAPTER 10. List of military abbreviations.....	28-30	78
APPENDIX. List of references.....		94
INDEX.....		95

LIST OF CHARTS

Chart 1. Marginal data for maps, photomaps, and aerial photographs.....	3
2. Drainage.....	4
3. Relief.....	7
4. Land classification.....	9
5. Hydrography, dangers, obstructions.....	12
6. Aids to navigation.....	15
7. Aeronautical chart symbols.....	17
8. Roads, railroads, wire communication.....	21
9. River works.....	23
10. Buildings, urban areas.....	25
11. Miscellaneous.....	26
12. Boundaries, marks, and monuments.....	27
13. Military units—identification.....	36
14. Military units—size.....	38

LIST OF CHARTS—Continued

	Page
15. Air activities.....	39
16. Antiaircraft artillery activities.....	43
17. Boundaries and delimited areas.....	44
18. Chemical warfare activities.....	46
19. Engineer symbols.....	50
20. Field and permanent fortifications.....	50
21. Obstacles.....	52
22. Signal facilities.....	55
23. Special buildings, posts, and centers.....	56
24. Supply, transportation, traffic.....	57
25. Weapons.....	60
26. Examples—Antiaircraft Artillery.....	64
27. Examples—Armored.....	65
28. Examples—Army Air Forces.....	66
29. Examples—Cavalry.....	67
30. Examples—Chemical Warfare Service.....	68
31. Examples—Coast Artillery Corps.....	68
32. Examples—Corps of Engineers.....	69
33. Examples—Field Artillery.....	70
34. Examples—Infantry.....	71
35. Examples—Medical Department.....	72
36. Examples—Ordnance Department.....	73
37. Examples—Quartermaster Corps.....	74
38. Examples—Signal Corps.....	75
39. Examples—Tank Destroyer.....	76
40. Examples—Transportation Corps.....	77

This manual supersedes FM 21-30, 26 November 1941, including C 1, 9 May 1942 and C 2, 27 July 1942.

PART I

GENERAL MAPPING

CHAPTER 1 · GENERAL

1. PURPOSE. This manual gives in convenient form the abbreviations and general symbols which have been authorized for military use. It contains technical symbols and instructions for the map maker, and military symbols for the use of those in the military service. Persons engaged in the preparation of maps should also be guided by AR 300-15, TM 5-230, and Bulletin 788, Topographical Instructions of the United States Geological Survey. Those whose duties require them to read foreign topographic and military maps should consult FM 30-22.

Symbols other than those shown herein may be used provided they do not conflict with any authorized symbols and are explained in a legend.

2. SCOPE. Part I of this manual deals with general topographic, hydrographic, and air navigational symbols and abbreviations prescribed for use on all United States maps. Part II contains symbols of a military nature authorized by the War Department. Part III gives authorized military abbreviations.

3. SIZE. **a.** In general, topographical symbols resemble the objects which they represent. The symbols vary in

size with the scale of the map. On small-scale maps, the symbols are reduced to their most elementary form and do not conform to scale. As the scale is increased, the symbols assume more nearly the shape and scaled size of the object represented.

b. The symbols in this book are generally of a size suitable for use on a map of scale 1:62,500, unless otherwise noted.

4. COLOR. The symbols are shown in appropriate color for a four-color map. When less than four colors are used, the colors in the symbols shown in chapters 2, 3, and 5 which are not used will be executed in black ink.

5. LETTERING. Civil divisions are indicated by **VERTICAL ROMAN** type; natural water features by **SLANT ROMAN** type, or italic; natural land features by **VERTICAL GOTHIC** type; and works of man by **SLANT GOTHIC** type. On hastily prepared military maps, the lettering may vary considerably from these standards.

6. MARGINAL DATA. The data shown on chart 1 are given, where practicable, in the margins of all maps, photomaps, or aerial photographs, and usually in the places indicated by the encircled figures. On military maps, overlays, and field sketches, only essential information concerning the kind of map, orientation, date of preparation, source, and scale are shown, and then not necessarily in the margins. For detailed information on marking aerial photographs see FM 30-21.

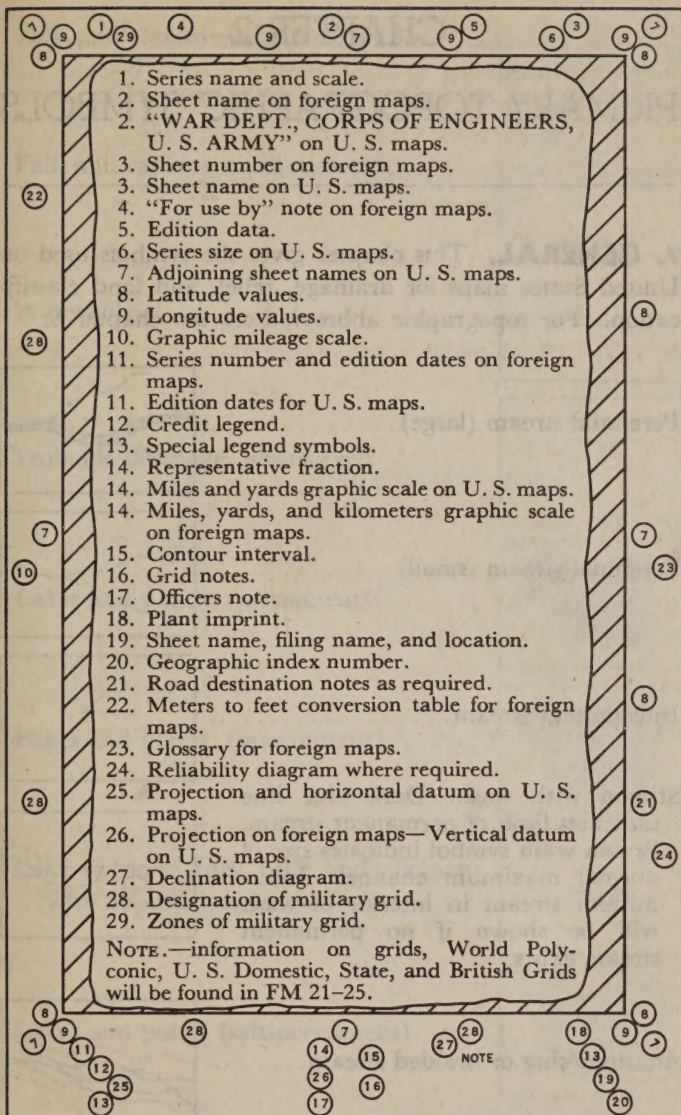


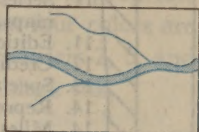
Chart 1.—Marginal data for maps, photomaps, and aerial photographs.

CHAPTER 2

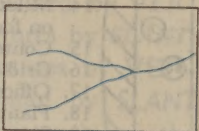
PRIMARY TOPOGRAPHIC SYMBOLS

7. GENERAL. This chapter gives the symbols used on United States maps for drainage, relief, and land classification. For topographic abbreviations, see chapter 6.

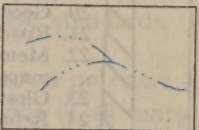
Perennial stream (large)



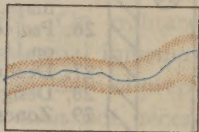
Perennial stream (small)



Intermittent stream



Stream with wash. Dark blue line indicates limit of permanent stream. Brown wash symbol indicates size of normal maximum channel. Intermittent stream in interior of wash will be shown if no permanent stream exists.



Anastomosing or braided stream

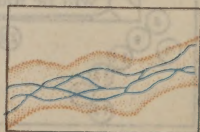
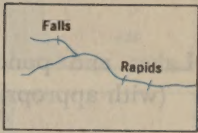
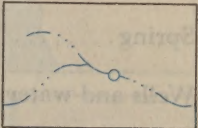
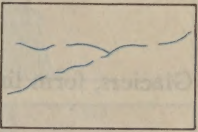


Chart 2.—Drainage.

Falls and rapids—large scale map..... 

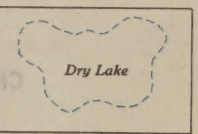
Falls and rapids—small scale map..... 

Waterhole..... 

Probable drainage, unsurveyed..... 

Lakes and ponds: (permanent)..... 

Lakes and ponds: (intermittent)..... 

Lake or pond (dry bed) and claypans
(with appropriate text)..... 

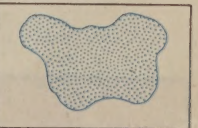
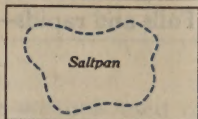
Lakes and ponds (salt-permanent)..... 

Chart 2.—Drainage—Continued.

Lakes and ponds (salt-intermittent)



Lakes and ponds (salt-dry) (saltpans)
(with appropriate text)



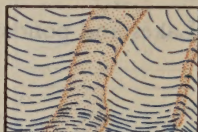
Spring

Wells and water tanks

Glaciers, form lines showing flow



Glacial surface moraine



Snow field

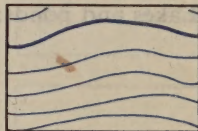


Chart 2.—Drainage—Continued.

Contours (blue if under water)



Contours (approximate only)



Form lines (no definite interval)



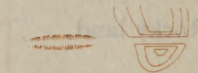
Hachures



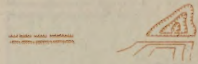
Depression contours



Cuts



Fills (Where high railroad or highway embankments occur, the use of hachures to represent the bank or grade is recommended instead of extensive use of depression contours covering large areas of the sheet.)



Mine dump (ore)

Tailings



Chart 3.—Relief.

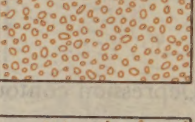
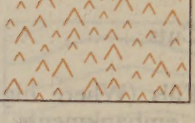
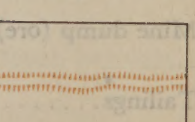
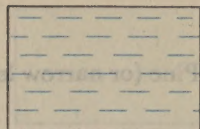
Bluffs	Rocky (or use contours)	
	Other than rocky (or use contours)	
	Sand and sand dunes	
	Washes	
	Gravel	
	Rocky land	
	Lava	
	Moraine, or esker	

Chart 3.—Relief—Continued.

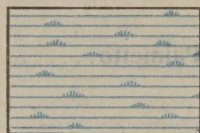
Overflowed land.....



Marsh (if peat bog add appropriate text).....



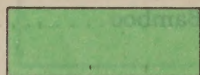
Salt marsh.....



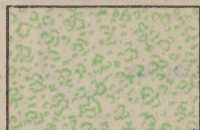
Cypress swamp.....



Woodland (or as shown below).....



Woodland (or broadleaved trees).....



Logged-off or burned-off area.....



Dense woods or jungle growth.....

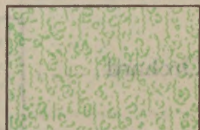
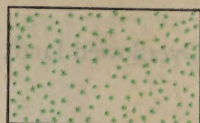


Chart 4.—Land classification.

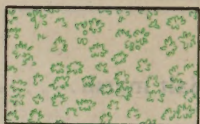
Pine (or narrow leaved trees)



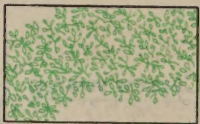
Palm



Palmetto



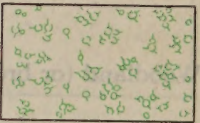
Mangrove



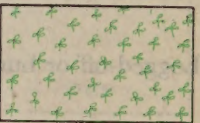
Bamboo



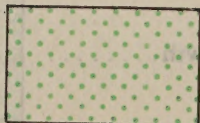
Cactus



Banana



Orchard



or

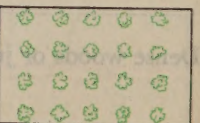
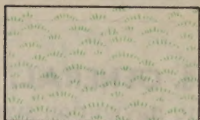


Chart 4.—Land classification—Continued.

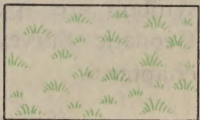
Vineyard



Grassland in general



Tall tropical grass



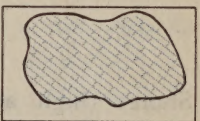
Cultivated fields in general (Scale
1:31,680 and larger)



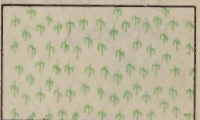
Cotton



Rice field



Sugarcane



Corn

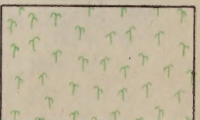


Chart 4.—Land classification—Continued.

CHAPTER 3

HYDROGRAPHY

8. GENERAL. This chapter gives hydrographic and aids to navigation symbols used on United States maps. These symbols are approved by the United States Coast and Geodetic Survey. For hydrographic abbreviations, see chapter 6.

Shore lines { Surveved
Unsurveved

Shores (high and low water lines and areas between)

In general

Rocky ledges . .

Coral reefs

Gravel and rocks

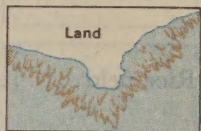
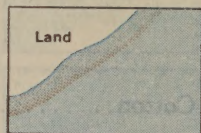


Chart 5.—Hydrography, dangers, obstructions.

Shores (high and low water lines and areas between)—Con.

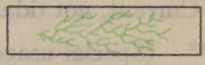
Mud.....



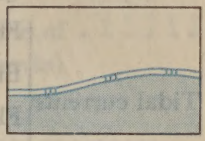
Tidal flats.....



Kelp or eel grass.....



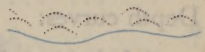
Ice limits-shelf ice.....



Rock under water..... +

Rock awash (at any stage of the tide)..... *

Breakers along shore.....



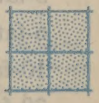
Fishing stakes.....



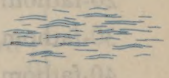
Fish weir.....



Salt evaporator.....



Overfalls and tide rips.....



Limiting danger line.....



Whirlpools and eddies.....



Chart 5.—Hydrography, dangers, obstructions—Continued.

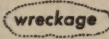
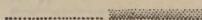
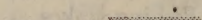
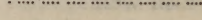
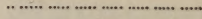
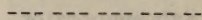
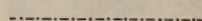
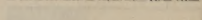
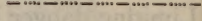
Wreck (any portion of the hull or superstructure above low water)	
Sunken wreck (dangerous to surface navigation)	
Sunken wreck (not dangerous to surface navigation nor those over which the depth exceeds 10 fathoms)	++
Foul ground	
Number of sunken wrecks	
Current, not tidal, velocity 2 knots	
(Special usage)	
Tidal currents	Flood, 1½ knots 
	Ebb, 1 knot 
	Flood, second hour 
	Ebb, third hour 
No bottom at 50 fathoms	50
Depth curves:	
1-fathom or 6-foot line	
2-fathom or 12-foot line	
3-fathom or 18-foot line	
4-fathom line	
5-fathom line	
6-fathom line	
10-fathom line	
20-fathom line	
30-fathom line	
40-fathom line	
50-fathom line	
100-fathom line	

Chart 5.—Hydrography, dangers, obstructions—Continued.

Lifesaving station (in general)	⚓	L.S.S.
Lifesaving station (Coast Guard)	⚓	C.G. 165
Lighthouse	★	
Lighthouse on small-scale chart (light sectors shown by dotted lines)	•	
Light vessels showing number of mast lights	⚓ ⚓	
Beacons (sectors shown by dotted lines)	{ Lighted Not lighted (sample of distinctive top marks) }	★ ▲ ⚓ ⚓ ⚓ ⚓ ⚓
Buoys	Buoy of any kind (or red buoy)	◇
	Black	◆
	Striped horizontally (in general)	◇
	Striped horizontally (red and black)	◆
	Striped vertically	◇
	Checkered	◆
	Perch and square	◇
	Perch and ball	◇
	Whistling (or use first six symbols with word "whistling")	◇
	Bell (or use first six symbols with word "bell")	◇
	Lighted	★

Top marks
used with any
buoy symbols

Chart 6.—Aids to navigation.

Radio station	.....	RS.⊙
Radio direction-finder station (radio compass station)	.....	RC.⊙
Radio tower	.....	RT.⊙
Radio beacon	.....	R.Bn.⊙
Pilot station	.....	⊙ PIL. STA.
Weather Bureau signal station	.....	⊙ W. B. SIG. STA.
Water gage	.....	†
Anchorage	{ Of any kind (or for large vessel)	⚓
	{ For small vessels	†
Mooring	.....	⚓
Range or bearing line	.....	-----
Track line	.....	—————
Drydock	.....	
Floating drydock	.....	
Patent slip	.....	
Leader cable	.....	=====
Dolphin	.....	⚓
Anchorage prohibited	.....	Anchorage prohibited

Chart 6.—Aids to navigation—Continued.

CHAPTER 4

AERONAUTICAL CHART SYMBOLS

(To be reproduced in magenta)

9. GENERAL. The conventional signs for use on aeronautical charts differ from those used on topographic maps as follows:

- a. All symbols are larger and more striking to the eye.
- b. Those features on the ground which are easily identified from high altitudes are emphasized on aeronautical charts. Other features are subordinated or omitted entirely.

Airports:

Unclassified	⊕
Military field	⊙
Joint military-civil	⊗
Commercial or municipal	⊛
Flight strip (landing area adjacent to highway; symbol indicates direction of runway)	⊖
Emergency landing field	+

Seaplane ports:

Base with complete facilities	⊕
Anchorage with limited facilities	⚓
Protected anchorage with no facilities	⚓

Beacons:

Rotating, with flashing code beacon	★
Rotating, with course lights and code	★ 27 —
Flashing code	★
Flashing	★

Chart 7.—Aeronautical chart symbols.

Obstruction (center of symbol marks location) Λ 205

Prominent elevation (numerals indicate height in feet)..... 862



Mooring mast.....



Night lighting facilities (place under field name)..... LE

Marine navigation light (with characteristic)... Go Fl ●

Lines of equal magnetic declination..... — — — — — 22° W

Prominent transmission line..... —T—T—T—T—T—T—

Civil airways: RED AIRWAY NO. 1

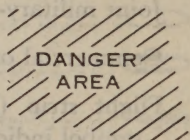
With flight levels indicated.....

Controlled

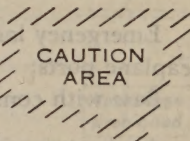
Uncontrolled..... 

Air navigation hazards (United States only):

Danger area.....



Caution area.....

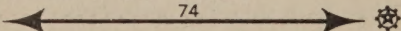


Prohibited area..... AIRSPACE



Air defense zone or vital defense area
(United States only)..... **EASTERN AIR**

Air routes as shown on radio direction-finding charts of the United States:



Radio:

Radio fan marker



WINSTON
— —

Radio marker beacon (without voice) . . .

359H
KNOXVILLE
RADIO 278

Radio marker beacon (with voice)



379 AND 209 I . .
NEW FLORENCE
RADIO 278

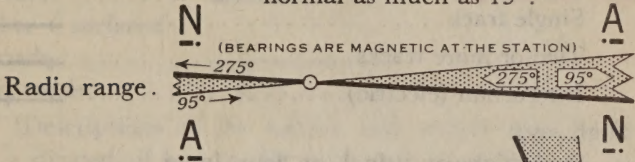
Nondirectional radio beacon (type H)



OTTOWA
278 YJ — : — —

WARNING

Warning note Magnetic variation in this area at ground elevation differs from normal as much as 15°.



Radio range note (at neat line)

To Big Springs
326 BZ — : : . .

Radio range (without voice) ○ ←

206 AP . : — . .

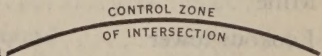
Radio range (with voice) . . ○ ←

391 LN . : : . .
LEBO RADIO 278

Radio range (simultaneous) ○ ←

WHITEHALL RADIO
284 WW : — —

Control zone of intersection



Airport control tower



BIGGS FIELD
TOWER 396

Radio direction finder station



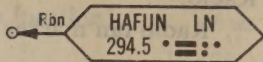
RC

ALGOA KFOB

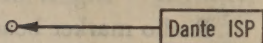
Chart 7.—Aeronautical chart symbols—Continued.

Radio—Continued.

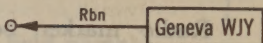
Radio beacon



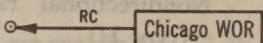
Radio communication station .



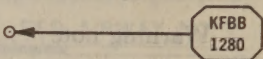
Radio communication station
(with radio beacon facility) .



Radio communication station
(with direction-finder facility)

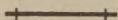


Radio broadcasting station . .

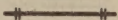


Railroads (if abandoned, label):

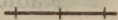
Single track



Two or more tracks

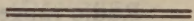


Interurban (electric)



Highways:

Superhighway (dual or four lanes
and more)



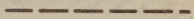
Main road



Secondary road



Trails



City or large town



Town or village



Landmark



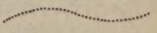
Mine



Lookout tower



Danger curve



Coast guard station



Dam or dam with lock



Race track



Chart 7.—Aeronautical chart symbols—Continued.

CHAPTER 5

WORKS OF MAN

10. GENERAL. This chapter gives the symbols used on maps to indicate the works of man.

	Larger than 1:200,000	1:200,000 and smaller
Primary highways		
Secondary highways		
Other surfaced roads		
Dirt roads		

(Descriptions of the surface and widths shall be indicated, if known, for each road classification. See paragraph 25 and chart 19.)

Trails		
Poor pack trail or footpath		
National or U. S. route.		
Provincial or State route.		

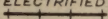
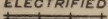
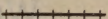
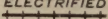
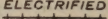
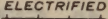
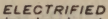
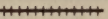
(Date of road information shown in margin on all maps.)

Telegraph and telephone lines	On ground or poles	
	Underground	
	Submarine	
Electric power transmission line		
Tunnel (railroad or road)		
Railroad station of any kind		

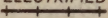
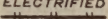
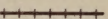
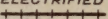
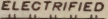
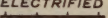
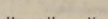
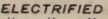
Chart 8.—Roads, railroads, wire communication.

Railroads:

Larger than 1:200,000

Wide gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 
Normal gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 
Narrow gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 
Electric passenger only . .	Single track		
	Double track		

1:200,000 and smaller

Wide gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 
Normal gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 
Narrow gage	Single track		ELECTRIFIED 
	Double track		ELECTRIFIED 

RR in road 1:250,000 and smaller. 

Abandoned RR 

NOTE.—Railroads under construction may be shown either broken or solid, with appropriate notation.

Railroad crossings on maps larger than 1:250,000

Grade, RR above, RR beneath . . . 

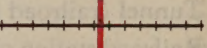
General crossing symbol for maps
1:250,000 and smaller 

Chart 8.—Roads, railroads, wire communication—Continued.

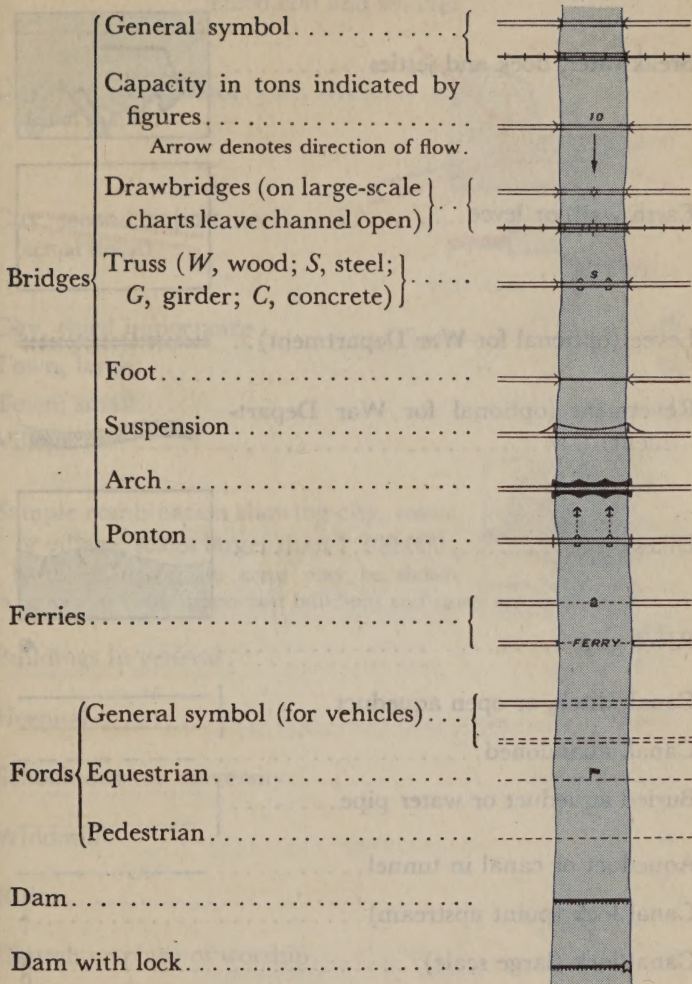
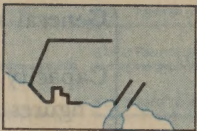
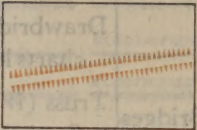


Chart 9.—River works.

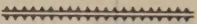
Breakwater, dock and jetties.....



Earth wall, or levee.....



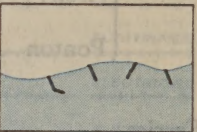
Levee (optional for War Department) ..



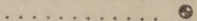
Revetment (optional for War Department).....



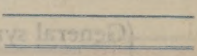
Dikes.....



River gage.....



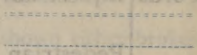
Canal, ditch, or open aqueduct.....



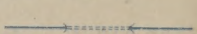
Canal, abandoned.....



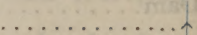
Buried aqueduct or water pipe.....



Aqueduct or canal in tunnel.....



Canal lock (point upstream).....



Canal lock (large scale).....

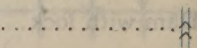
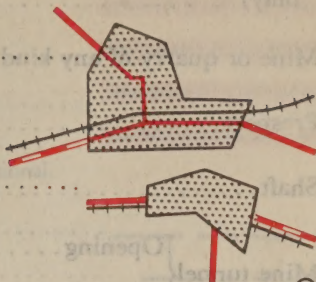


Chart 9.—River works—Continued.

1:200,000 and smaller

- City, first importance
(actual shape)
- City, second importance
(actual shape)
- City, third importance
- Town, large
- Town, small
- Village



Sample combination showing city, town,
or village, scales larger than 1:200,000.



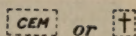
NOTE.—Large urban areas may be shown
in gray tint with important buildings and street system in black.

- Buildings in general
- Hospital ■ or +
- Schoolhouse or university ■ or ■ SCH
- Windmill ⚙
- Ruins □
- Church or place of worship ⛪
- Fort ⚔
- Cliff dwellings



Chart 10.—Buildings, urban areas.

Cemetery (cross symbol to be used in U. S. only).....



Mine or quarry of any kind (or open cut) x

Prospect..... x

Shaft.....

Mine tunnel { Opening.....
Showing direction.....

Oil or gas wells.....

Tanks.....

NOTE.—Scales larger than 1:50,000, show individual wells and tanks. Scales 1:50,000 and larger than 1:200,000, show well and tank farms with three or four symbols. Scales 1:200,000 and smaller, omit wells and tanks. No pipe lines are shown on maps of any scale.

Coke ovens.....

Fences { Fence of any kind (or board fence)
Stone.....
Worm.....
Wire.....
Hedge.....

Barbed Smooth
x-x-x-x-x-x o-o-o-o-o-o

Chart 11.—Miscellaneous.

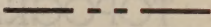
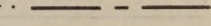
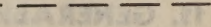
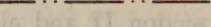
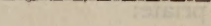
Map boundaries

Foreign:

International	
Intercolonial	
State or province	
County or district	

Note.—Use of red screen is optional.

Domestic:

National or state	
County line	
Civil township, district or precinct	
Reservation line	
Land-grant line	
Metropolitan area	

Cemetery, small park, etc

U. S. township, section, and quarter-section lines (any one for township line alone, any two for township and section lines)

Located U. S. township and section corners.

Boundary monument

Triangulation point or primary traverse station

Permanent bench mark (and elevation)

Precise bench mark

Intermediate bench mark (and elevation)

U. S. mineral monument

Observation spot (astronomical position)

Any located station or object (with explanatory note)

Chart 12.—Boundaries, marks, and monuments.

CHAPTER 6

GENERAL MAPPING ABBREVIATIONS

SECTION 1

TOPOGRAPHIC ABBREVIATIONS

11. GENERAL. The abbreviations listed below are prescribed for use on all United States maps. Besides those listed in this section, those abbreviations listed in section II and also in chapter 10 are used when appropriate:

A.....	arch or arroyo
abut.....	abutment
b.....	brick
bot.....	bottom
Br.....	branch
br.....	bridge
C.....	cape
cem.....	cemetery
con.....	concrete
cov.....	covered
Cr.....	creek
cul.....	culvert
DS.....	drug store
E.....	east
Est.....	estuary
f.....	fordable
Ft.....	fort
gir.....	girder
i.....	iron

I.....	island
Jc.....	junction
kp.....	king-post
L.....	lake
Lat.....	latitude
Ldg.....	landing
LSS.....	lifesaving station
LH.....	lighthouse
Long.....	longitude
Mt.....	mountain
Mts.....	mountains
N.....	north
nf.....	not fordable
p.....	pier
pk.....	plank
PO.....	post office
Pt.....	point
qp.....	queen-post
R.....	river
RH.....	roundhouse
RR.....	railroad
2d.....	second
S.....	south
s.....	steel
Sch.....	schoolhouse
Sta.....	station
St.....	stone
str.....	stream
TG.....	tollgate
3d.....	third
Tres.....	trestle
tr.....	truss
WT.....	water tank
WW.....	waterworks
W.....	west
w.....	wood

SECTION II

ABBREVIATIONS USED WITH HYDROGRAPHIC SYMBOLS

12. GENERAL. The following abbreviations, for use with hydrographic symbols, are authorized for all United States nautical maps and charts. These abbreviations are approved by the Federal Board of Surveys and Maps and are used by the United States Coast and Geodetic Survey and Hydrographic Office.

13. RELATING TO LIGHTS.

AERO.....	aeronautical
Alt.....	alternating
Bu.....	blue
D.....	destroyed
ev.....	every
Exper.....	experimental
F.....	fixed
F Gp FL.....	fixed and group flashing
F FL.....	fixed and flashing
FL.....	flashing
G.....	green
Gp.....	group
Gp FL.....	group flashing
Gp Occ.....	group occulting
Hor.....	horizontal
I Qk.....	interrupted quick
Irreg.....	irregular
Lt.....	light
Lt Ho.....	lighthouse
m.....	nautical mile

min.....	minutes
OBSC.....	obscured
Occ.....	occulting
Priv maintd.....	private light (maintained by private interests; to be used with caution)
Qk FL.....	quick flashing
R.....	red; range
REF.....	reflector
Rev.....	revolving
sec.....	seconds
SEC.....	sector
S-L.....	short-long
Temp.....	temporary
(U).....	unwatched
VB.....	vertical beam
Vert.....	vertical
vis.....	visible
W.....	white

14. RELATING TO FOG SIGNALS.

<i>DFS</i>	distance finding station
<i>FB</i>	fog bell
<i>FD</i>	fog diaphone
<i>FG</i>	fog gong; fog gun
<i>FH</i>	fog reed; fog horn
<i>FN</i>	fog nautophone
<i>FS</i>	fog siren; fog signal station
<i>FT</i>	fog trumpet
<i>FW</i>	fog whistle
<i>SB</i>	submarine fog bell (mechanical)
<i>SFO</i>	submarine fog oscillator

15. RELATING TO DANGERS.

<i>Bk</i>	bank
<i>cov</i>	covers

<i>D</i>	doubtful
<i>ED</i>	existence doubtful
<i>Obstr</i>	obstruction
<i>PA</i>	position approximate
<i>PD</i>	position doubtful
<i>Pos</i>	position
<i>rep</i>	reported
<i>Shl</i>	shoal
<i>uncov</i>	uncovers
<i>Wk</i>	wreck
<i>Wks</i>	wreckage

16. RELATING TO TIDES AND CURRENTS.

<i>HW</i>	high water
<i>HHW</i>	higher high water
<i>LW</i>	low water
<i>LLW</i>	lower low water
<i>MHW</i>	mean high water
<i>MHHW</i>	mean higher high water
<i>MLW</i>	mean low water
<i>MLLW</i>	mean lower low water
<i>MSL</i>	mean sea level
<i>MTL</i>	mean tide level

17. RELATING TO QUALITY OF BOTTOM.

a. Material.

<i>Bld(s)</i>	boulder(s)
<i>Ck</i>	chalk
<i>Cl</i>	clay
<i>Cn</i>	cinders
<i>Co</i>	coral
<i>Co Hd</i>	coral head
<i>Di</i>	diatom
<i>G</i>	gravel
<i>Gl</i>	globigerina
<i>Grs</i>	grass

<i>La</i>	lava
<i>M</i>	mud
<i>Ml</i>	marl
<i>Oys</i>	oysters
<i>Oz</i>	ooze
<i>P</i>	pebbles
<i>Pm</i>	pumice
<i>Rk</i>	rock
<i>S</i>	sand
<i>Sh</i>	shells
<i>Sp</i>	specks
<i>Spg</i>	sponge
<i>St</i>	stones
<i>Vol Ash</i>	volcanic ash

b. Quality.

<i>brk</i>	broken
<i>crs</i>	coarse
<i>dk</i>	dark
<i>fly</i>	flinty
<i>fne</i>	fine
<i>glac</i>	glacial
<i>gty</i>	gritty
<i>hrd</i>	hard
<i>lrg</i>	large
<i>lt</i>	light
<i>rky</i>	rocky
<i>sft</i>	soft
<i>sml</i>	small
<i>spk</i>	speckled
<i>stf</i>	stiff
<i>stk</i>	sticky

c. Color.

<i>bk</i>	black
<i>br</i>	brown
<i>bu</i>	blue
<i>gn</i>	green

<i>gy</i>	gray
<i>rd</i>	red
<i>wh</i>	white
<i>yl</i>	yellow

18. RELATING TO BUOYS AND BEACONS.

<i>B</i>	black
<i>Bn</i>	beacon
<i>Br</i>	brown
<i>C</i>	can
<i>Chec</i>	checkered
<i>G</i>	green
<i>HB</i>	horizontal bands
<i>HS</i>	horizontal stripes
<i>N</i>	nun
<i>R</i>	red
<i>REF</i>	reflector
<i>VS</i>	vertical stripes
<i>W</i>	white
<i>Y</i>	yellow

19. RELATING TO STATIONS.

<i>FP</i>	flagpole
<i>FS</i>	flagstaff
<i>F TR</i>	flag tower
<i>LOOK TR</i>	lookout tower
<i>LSS</i>	lifesaving station
<i>NRC</i>	naval radio direction-finder (radio compass station)
<i>NRS</i>	naval radio station
<i>PIL STA</i>	pilot station
<i>R Bn</i>	radio beacon
<i>RS</i>	radio station
<i>R Tr</i>	radio tower
<i>SIG STA</i>	signal station
<i>S PIPE</i>	standpipe

STA.....	station
WB SIG STA.....	Weather Bureau signal station

20. GENERAL ADJECTIVES.

<i>aband</i>	abandoned
<i>abt</i>	about
<i>anc</i>	ancient
<i>approx</i>	approximate
<i>bet</i>	between
<i>Cl</i>	clearance
<i>Concr</i>	concrete
<i>Conspic</i>	conspicuous
<i>cor</i>	corner
<i>discontd</i>	discontinued
<i>dist</i>	distant
<i>elec</i>	electric
<i>estab</i>	established
<i>exper</i>	experimental
<i>extr</i>	extreme
<i>fl</i>	flood
<i>gt</i>	great
<i>lrg</i>	large
<i>maintd</i>	maintained
<i>mid</i>	middle
<i>mod</i>	moderate
<i>No</i>	number
<i>priv</i>	private, privately
<i>prom</i>	prominent
<i>sml</i>	small
<i>std</i>	standard
<i>subm</i>	submerged

PART II

MILITARY MAPPING SYMBOLS

CHAPTER 7

MILITARY UNITS

21. IDENTIFICATION. a. The symbols in chart 13 are used to indicate military units or their activities on maps, sketches, and overlays. Where the use of the identifying symbol of a military unit is impracticable, abbreviations are employed.

b. These symbols are used either within a rectangle to indicate a military unit, a triangle to indicate an observation post, or a circle to indicate a supply point.

22. SIZE. The symbols in chart 14 are used to indicate the size of a military organization. They are used mainly with boundary symbols, or with rectangles, triangles, or circles in conjunction with the symbols in chart 13. See charts 17 and 26-40.

Antiaircraft Artillery.....	
Armored Command.....	
Army Air Forces.....	
Artillery, except Antiaircraft Artillery.....	

Chart 13 —Military units—identification.

Cavalry (horse).....	
Mechanized.....	
Chemical Warfare Service.....	
Engineers.....	
Special (amphibian).....	
Infantry.....	
Medical Corps.....	
Military Police.....	
Ordnance Department.....	
Quartermaster Corps.....	
Signal Corps.....	
Tank destroyer.....	
Transportation Corps.....	
Veterinary Corps.....	

NOTES.—1. Coast Artillery Corps uses the artillery symbol, with appropriate abbreviations. See chart 31.

2. Airborne units are designated by combining a gull wing symbol with the arm or service symbol. Examples:

Airborne Artillery.....

Airborne Infantry.....

3. For units attached to Air Forces, the arm or service symbol is placed over the Air Forces symbol. Examples:

Aviation signal unit.....

Aviation ordnance unit.....

Chart 13.—Military units—identification—Continued.

The following symbols are placed either in boundary lines (see chart 17) or above the rectangle, triangle, or circle inclosing the identifying arm or service symbol.

Squad	•
Section	••
Platoon	•••
Company, troop, battery, or Air Forces flight	I
Battalion, cavalry squadron, or Air Forces squadron	II
Regiment or group; combat team (with abbreviation CT following identifying numeral)	III
Brigade, combat command of armored division, or Air Forces wing	X
Division, or command of an Air Force	XX
Corps or Air Force	XXX
Army	XXXX
Service command, department, or section of com- munications zone	ooo
Communications zone	oooo
General Headquarters	6HQ

Chart 14.—Military units—size.

CHAPTER 8

MILITARY ACTIVITIES

23. GENERAL. **a.** This chapter contains symbols used for military purposes on maps, charts, and overlays. These symbols are authorized for all military use, but they are used mainly on large-scale maps. No departures from these symbols should be made unless none of these signs applies or when the scale of a map prevents their use.

b. Special signs and symbols of a technical nature, such as signal wiring diagrams, construction blueprints, engineer construction symbols, or coast artillery fire-control maps, may be found in Field and Technical Manuals of the arm or service concerned.

24. COLOR. When colors are used, military symbols representing objects in territory occupied or controlled by our forces are shown in blue, and those in territory occupied or controlled by the enemy are shown in red. The only exceptions are the following:

a. Symbols for areas to be covered by friendly fire or gas, although generally located in enemy territory, are executed in blue.

b. Symbols for gassed areas, wherever located, are always executed in red.

Military airdrome, general



Commercial or municipal airfield



Army Air Forces air base or service center



Chart 15.—Air activities.

Night fighter airdrome.....



Air field:

Landing
Satellite
Auxiliary
Advanced

} + or

Dummy.....



Dispersal point for airplane.....



Revetment, splinterproof, for airplane.....



Airship.....



Airship hangar.....



Airship mooring mast.....



Autogiro or helicopter.....



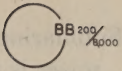
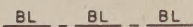
Radar station.....



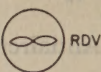
(Type No. —)

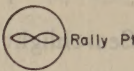
Barrage balloon ascension point.....

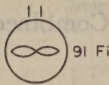


- Balloon barrage area (with number and height) . 
- Antiaircraft defended area..... 
- Searchlight belts..... 
- Combined antiaircraft and searchlight area..... 
- Restricted flying area..... 
- Prohibited flying area..... 
- Bomb line..... 
- Free bombing area..... 
- Antiaircraft ship (top of mast placed at exact location)..... 
- Antiaircraft ship, defended area (circle shows radius of effective action)..... 
or 
- Convoy (arrow indicates direction; point of arrow is at position of convoy)..... 

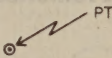
Submarine (arrow indicates direction; top of tower is at position).....

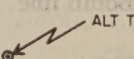
Rendezvous point.....

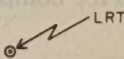
Rally point.....

Example, for separate units: 91st Fighter Squadron.....

Targets:

Primary.....

Alternate.....

Last Resort.....

Aircraft patrol area.....

Chart 15.—Air activities—Continued.

Antiaircraft unit symbol.....	
Balloon.....	
Barrage balloon ascension point.....	
Searchlight.....	
Radio detector (radar).....	
Searchlight with radio detector.....	
Searchlight at principal control point.....	
Searchlight at subcontrol point.....	
Spread-beam searchlight.....	
Self-propelled antiaircraft artillery.....	
50-caliber antiaircraft machine gun.....	
4.7-inch antiaircraft gun.....	
3-inch antiaircraft gun.....	
90-mm antiaircraft gun (etc., caliber on right).....	

Chart 16.—Antiaircraft artillery activities.

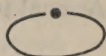
Squad	— • —
Section	— •• —
Platoon	— ••• —
Company or similar unit	— I —
Battalion or similar unit	— II —
Regiment or similar unit	— III —
Brigade	— X —
Division	— XX —
Corps	— XXX —
Army	— XXXX —
Service command, department, or section of communications zone	— OOO —
Communications zone	— OOOO —
Rear boundary of theater of operations	— GHQ —
Front line	////////
Fighter aviation (limit of radius of action)	— ∞ Fi —
Observation aviation (limit of zone of re- connaissance)	— ∞ Obsn —
Limit of wheeled traffic by <i>day</i>	— DY —
Limit of wheeled traffic by <i>night</i>	— NT —
Line beyond which <i>lights</i> on vehicles are pro- hibited	— LT —
Outpost line	— OPL —
Main line of resistance	— MLR —
Regimental reserve line	— RRL —
Limiting point	— ⊗ —
Line of communication	— LC —
Line of departure	— LD —
Straggler line	— P —
Prisoner of War inclosure, IV Corps	— P —

XXX
PW IV

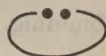
Chart 17.—Boundaries and delimited areas.

Defense areas (consist of boundaries broken by unit symbol):

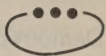
Squad.....



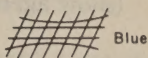
Section.....



Platoon.....

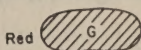


Demolitions.....

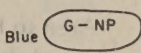


Gas (see also chart 18):

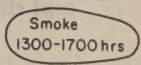
Area to be avoided.....



Area to be gassed, nonpersistent.....



Area blanketed by smoke (time effective).



Target areas (indicate caliber; draw symbol to scale):

Primary, 60-mm mortar (50 yards square).....



Primary, 81-mm mortar (100 yards square)....



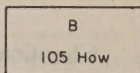
Secondary, 60-mm mortar (50 yards in diameter).



Secondary, 81-mm mortar (100 yards in diameter).....



Normal, Battery B, 105-mm howitzer
(100 by 200 yards).....



Emergency, Battery B, 105-mm howitzer
(100 by 200 yards).....

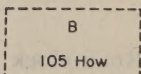


Chart 17.—Boundaries and delimited areas—Continued.

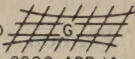
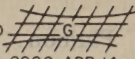
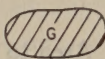
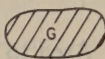
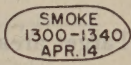
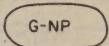
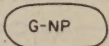
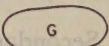
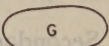
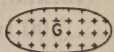
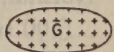
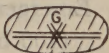
- Arsenal (chemical warfare).....  G
- Building, gasproof.....  G-PF
- Demolitions, vesicant contaminated (show agent, time, and date).....  RED  HS
0800 APR 14
- Dugout, gasproof.....  G-PF
- Gas:
- Area to be avoided (show agent, time, and date).....  RED  HS
0900 APR 14
- Area to be blanketed by smoke (show time effective and date).....  SMOKE
1300-1340
APR. 14
- Area to be gassed, nonpersistent (show agent, time, and date).....  BLUE  CG
0800 APR 14
- Area to be gassed, persistent (show agent, time, and date).....  BLUE  HS
0800 APR 14
- Mines:
- Chemical land mine.....  G
- Chemical land-mine barrier (mines emplaced but unfired).....  RED  HS
- Road-block obstacle, contaminated (show agent, time, and date).....  HS
0800 APR 14

Chart 18.—Chemical warfare activities.

25. ROAD AND BRIDGE CLASSIFICATION.

On topographic maps, road classification is as shown in chart 8. Military traffic control symbols are shown in chart 24. For military field sketches and topographic reconnaissance, the classification system described in this paragraph is used. The characteristics of roads and bridges are indicated by the following symbols and abbreviations:

a. General road types.

Physical characteristics	Type of surface		
	All weather		Earth
	Paved: such as concrete, bituminous, brick, or other pavement	Improved: such as gravel, crushed rock, stabilized soil, select granular material, or other wearing material	Unimproved: dusty when dry; muddy when wet
Good road (gentle grades, gradual curves, smooth surface, good foundation).	A	C	E
Poor road (steep grades, sharp curves, rough surface, or poor foundation).	B	D	F (probably impassible in wet weather).

1 Includes roads of these materials which have had a treatment to lay dust or which are covered by a bituminous surface treatment or seal coat.

b. General characteristics of roads and bridges.

(1) *Traffic lanes.*

1, 2, 3, etc. Placed after road type symbol to indicate roadways suitable for continuous traffic in one, two, three, etc., lanes respectively.

1+ One-lane roadway having occasional passing locations, and suitable for very light two-way traffic.

1½ One-lane roadway having frequent passing location, and suitable for light two-way traffic.

2 Two-lane roadway having occasional one-lane defiles, and suitable for moderate two-way traffic.

(2) *Information.*

W Followed by numeral indicates clearance width in feet provided at most critical location. Symbol is preceded by numeral to indicate more than one such lane (for example, 2 W 9 indicates two separate lanes, each of which provides a clearance width of 9 feet).

Cl Followed by numeral indicates clearance height in feet between surface of roadway and overhead obstruction.

T Preceded by numeral indicates tonnage limitation. (Bridges.)

Mi Preceded by numeral indicates distance in miles.

I Followed by numeral indicates average interval of time (time-distance) in minutes required by motor vehicles during daylight to travel section of road shown.

c. Engineer characteristics of roads and bridges.

(1) Roads.

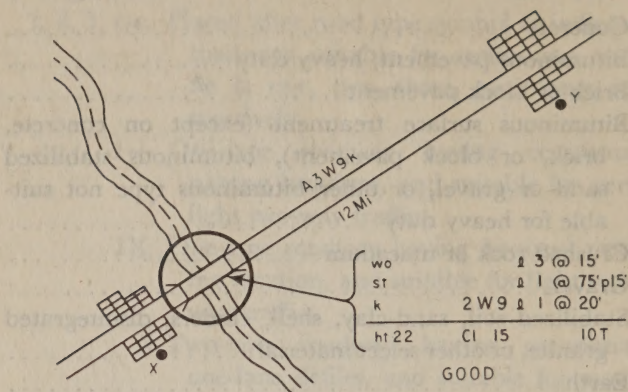
Concrete	k
Bituminous pavement, heavy duty	bt
Brick or block pavement	br
Bituminous surface treatment (except on concrete, brick, or block pavement), bituminous stabilized sand or gravel, or other bituminous type not suitable for heavy duty	bs
Crushed rock or macadam	m
Gravel	g
Stabilized soil, sand-clay, shell, cinders, disintegrated granite, or other select material	sm
Earth	ea

(2) Bridges.

Concrete, slab or beam	k
Concrete arch	ka
Steel beam	sb
Steel truss	st
Steel girder	sg
Stone arch	sa
Wood trestle	wo
Wood truss	wot
Length	l
Height above stream bed	ht
Panel length (trusses)	p
Condition (state as "excellent," "good," "fair," or "poor.")	

d. Example (see chart 19). Sketch between villages X and Y with good, all-weather, three 9-foot lanes, concrete road, 12 miles long, and a multiple bridge 140 feet long consisting of 45 feet of wood truss, and 20 feet of concrete beam and 75 feet of steel truss with 15-foot panels; 18-foot roadway width, 22 feet above stream bed, 15-foot clearance, capable of carrying 10 tons, and in good condition.

Road and bridge classification:



Special engineer landing craft:

Command and navigation, or patrol, boat...

Landing craft, mechanized (LCM).....

Salvage boat.....

Landing craft, vehicle-personnel (LCVP)....

Chart 19.—Engineer symbols.

Trench for one squad.....

Isolated dugout.....

Dugout in trench system.....

Gasproof dugout.....

Chart 20.—Field and permanent fortifications.

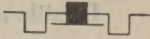
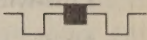
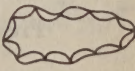
Surface shelter..... (personnel capacity indicated)	Occupied  Unoccupied 
Underground shelter..... (personnel capacity indicated)	Occupied  Unoccupied 
Surface shelter in trench system.....	
Underground shelter in trench system.....	
Gasproof surface shelter.....	 G-Pf
Fort, general.....	
Pillboxes:	
Concrete.....	
Steel turret.....	
Machine guns, direction of fire unknown.....	
Antitank guns, direction of fire unknown.....	
Direction of fire known, caliber unknown.....	
Machine guns, direction of fire known.....	
Antitank guns, direction of fire known.....	
Fortified area, general.....	

Chart 20.—Field and permanent fortifications—Continued.

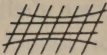
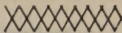
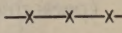
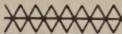
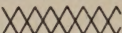
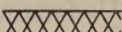
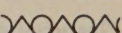
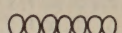
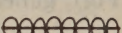
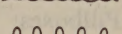
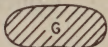
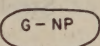
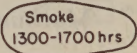
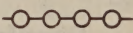
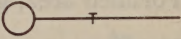
Demolitions.....	 Blue
Entanglements:	
Barbed wire, general.....	
Four-strand fence (protective wire).....	
Double-apron fence.....	
Low-wire fence.....	
High-wire fence.....	
Combination band.....	
Loose wire rolls.....	
Dannert wire or concertina.....	
Concealed wire.....	
Gas (<i>see also</i> chart 18):	
Area to be avoided.....	Red 
Area to be gassed, nonpersistent (indicate date and hour— <i>see</i> chart 18).	Blue 
Area blanketed by smoke (time effective).	
Mines and mine fields:	
Land mines:	
Single string of antitank mines.....	
Activated antitank mine.....	
Double antitank mine.....	
Double activated antitank mine.....	
Pressure type antipersonnel mine.....	
Trip-wire type antipersonnel mine	

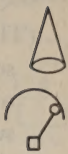
Chart 21.—Obstacles.

Mines and mine fields—Continued.

Land mines—Continued.

Booby trap.....

Mine detector.....



Mine fields.—The color green should be used to designate mine field areas, demolitions, road blocks, and other engineer obstacle activities. The color green is to be used for no *other* military activity. When the color green is not available, the symbol will be executed in black.

To be reproduced in *green*
(in black if green is not available).

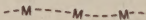
Mine belt; numerals in rectangle indicate number of mines in belt. *D* in rectangle represents dummy mine field. Mines in definite pattern; boundaries drawn to scale to indicate actual extent of belt.....



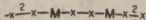
Boundary of mine field unfenced.....



Boundary of mine field indefinite, unfenced



Boundary of mine field, fenced with barbed wire. Numerals indicate number of strands in fence.....



Example of symbols in mine field. Scattered mines between boundaries and between belts are indicated schematically by small circular marks.....

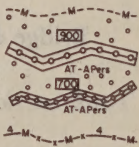
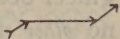


Chart 21.—Obstacles—Continued.

Marine mines, controlled..... 

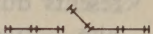
(This symbol indicates one 19-mine group, and a separate symbol is used for each group. As it appears here, the upper edge of this page is assumed to be seaward; and on charts the symbols should be correspondingly placed. The length of a mine group being 1,800 feet, the symbol is drawn to scale. Its position represents the contemplated disposition of the mine group.)

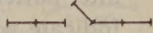
Leader gear..... 

(An energized cable to aid vessels through free passages in marine mine fields. Symbol is used on chart to show exact location.)

Chemical land mine..... 

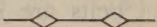
Marine nets:

Torpedo net (with gate)..... 

Antisubmarine net (with gate)..... 

Obstacle, general:

	Proposed	Prepared but passable	Completed
Individual.....			
Road block.....			
Bridge out.....			

Tank barrier..... 

Tank trap..... 

Chart 21.—Obstacles—Continued.

Filter center	
Information center	
Message Center	 Msg Cen or
Point on axis of signal communication (probable future location of command post)	
Examples:	
Artillery	
Cavalry	
Infantry	
Radar station	 (Type No. )
Radio intercept station	
Radio station (transmitting and receiving)	 or RS 
Radio direction—finder station (radio compass)	 or RC 
Radio direction—finder station, mobile	
Radio direction—finder station, portable	 Ptlbl
Switching central (located at command post)	
Switching central	
Commercial switching central	 Coml
Teletypewriter central	
Test station or cable terminal	 Name
Visual signal	

NOTE.—For special symbols used in signal communication for wiring diagrams, line route maps, traffic diagrams, and signal operation maps, see FM 24-5 and TM 11-462.

Chart 22.—Signal facilities.

Military post or station; command post or headquarters..... 

(Lower end of staff terminates at a military post or station or at an easily recognizable terrain feature near a command post or unit headquarters.)

Troop unit..... 

(On large-scale maps where troop units can be shown to scale, this symbol may be modified as follows so as to show area occupied by units in column or line and direction in which they are facing):

Line



Column



Arsenal..... 

Arsenal (chemical warfare)..... 

General hospital..... 

Laboratory, experimental center, or proving ground.. 

Point, any located (suitable description)..... 

Posts:

Observation, general..... 

Fixed underwater, listening..... 

Visual signal..... 

Reception center..... 

Replacement training center..... 

Training center..... 

Weather station..... 

Chart 23.—Special buildings, posts, and centers.

Debarkation or embarkation point..... 

Supply points:

Occupied..... 

Proposed..... 

Examples:

Railhead..... 

Class I supplies..... 

Ammunition (Class V supplies)..... 

Artillery ammunition..... 

Small-arms ammunition..... 

Class III supplies..... 

Water..... 

Engineer (arm or service symbol in circle).... 

Procurement district, headquarters..... 

Railroad center..... 

Supply:

Ammunition, all classes..... 

Ammunition, artillery..... 

Ammunition, small arms..... 

Class I..... 

Gasoline and oil..... 

Water..... 

Remount Service..... 

Chart 24.—Supply, transportation, traffic.

Petroleum supply:

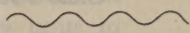
Gas wells 

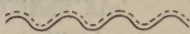
Oil wells 

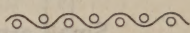
Oil-well derrick 

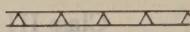
Petroleum tank 

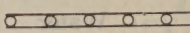
Bulk storage petroleum products 

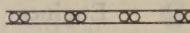
Surface cable 

Submarine cable 

Submarine pipeline 

Gas pipeline 

Oil pipeline 

Petroleum products pipeline, general 

Trains (supply, motor) 

Animal-drawn 

Pack 

Railway 

Traffic and traffic control:

Railroad grade crossing 

Railroad above road 

Railroad beneath road 

Chart 24.—Supply, transportation, traffic—Continued.

Traffic and traffic control—Continued.

Boundary between two sections of roadway . . .	
Impassable roadway	
Bridge	
Tunnel	
Rotary traffic	
Turn-around location	
Parallel line to one-lane road indicates length of roadway where passing is possible	
One-way traffic	
Two-way traffic	
Alternating one-way traffic	
Dispatch route (operated by schedule system)	
Reserved route (can be used by specific traffic only)	
National and state route markers, respectively	 
Military route marker	
Traffic post (or unit); traffic headquarters	 
Marked road intersection (atlas-grid system)	
Line beyond which any lights (including black-out lights) are prohibited	

Chart 24.—Supply, transportation, traffic—Continued.

Automatic rifle	
Automatic rifle (position prepared but not occupied)	
Machine guns (arrow points in principal direction of fire):	
Caliber .30, water-cooled, heavy	
Caliber .30, air-cooled, light	
Caliber .50	
Antiaircraft	
Sector of fire of single machine gun (arrows indicate sector of fire; heavy solid portion on solid arrow shows danger space when fire is placed on final protective line)	
Sector of fire of machine-gun section (two guns)	
Rifle, firing antitank grenade	
Rocket launcher, antitank	
Antitank gun, 75-mm (caliber specified on right).	
75-mm antitank gun in position with principal direction of fire	
37-mm antitank gun in position with principal direction of fire	
37-mm antitank gun emplacement, showing principal direction of fire	

Chart 25.—Weapons.

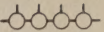
Gun.....		} Open when emplacement is unoccupied, thus... }	
Gun battery.....			
Howitzer or mortar.....			
Howitzer or mortar battery..... or			
			
4.2-inch chemical mortar.....	 4.2 Cml		 4.2 Cml
Tanks:			
Light.....			
Medium.....			
Heavy.....			
Self-propelled guns:			
Howitzer (tank-chassis mounted; indicate caliber)...			 105
Mortar (indicate caliber).....			 81
Gun (indicate caliber).....			 37 AT
Ammunition carrier.....			

Chart 25.—Weapons—Continued.

CHAPTER 9

ILLUSTRATIONS OF MILITARY SYMBOLS

26. UNIT DESIGNATIONS.—This chapter contains examples to illustrate the method of combining basic symbols and abbreviations in order to show the desired information. The following are general rules governing the application of these symbols to rectangles, triangles, or circles representing, respectively, troop units, observation posts, and supply points:

a. The basic symbol is placed in the center. (See chart 13.)

b. The symbol for the size of the unit is placed above.

c. Army and air force are shown by a number spelled out.

d. Corps and air force command are shown by Roman numerals.

e. When the symbol represents either an army or a corps in its entirety, the numeral designation is placed *inside* the box. When the symbol pertains to a unit within an army or corps, the army or corps numeral is placed on the right, *outside* the box.

f. Numbers designating battalions in a regiment are shown on the left, in Arabic numerals.

g. Numbers designating separate battalions are shown on the right, in Arabic numerals.

h. Numbers designating divisions, brigades, groups, regiments, separate companies, or similar separate units are placed on the right, in Arabic numerals.

i. Letters designating companies, troops, or batteries are in capitals and are shown on the left.

j. Companies, troops, batteries, or platoons (not separate), and other elements of a unit which are designated by name instead of by letter (for example, "Antitank Company" or "Headquarters and Service Troop"), are designated by the use of the proper abbreviation on the left.

k. Abbreviations for explanatory purposes are shown on the right (see ch. 10).

l. Abbreviations are used instead of symbols to show information that cannot be indicated by a single symbol.

m. Calibers are shown by numbers placed under the symbol and the unit of measure is omitted.

27. APPLICATION OF SPECIAL SYMBOLS.

The following examples illustrate the method of combining basic symbols and abbreviations in order to show the desired information. These are only a few of the possible combinations. The following diagram illustrates how these symbols are built up:



This is a troop unit.



This makes it infantry.



This makes it a battalion of infantry.



This makes it a battalion of airborne infantry.



Pcht

This makes it a parachute battalion of airborne infantry.



3

502 Pcht

This tells what battalion of parachute infantry it is.

88th Antiaircraft Artillery Brigade.....	 88
3d Antiaircraft Artillery Group.....	 3
302d Antiaircraft Balloon Battalion (low altitude).....	 302 LA
101st Antiaircraft Balloon Battery (separate) (very low altitude).....	 101 VLA
Headquarters Battery, 401st Antiaircraft Gun Battalion.....	Hq  401 90
Battery C, 228th Antiaircraft Searchlight Battalion.....	C  228 90
2d Platoon, Battery C, 119th Airborne Antiaircraft Battalion.....	2C  119 40
Battery D, 441st Antiaircraft Artillery Automatic Weapons Battalion (mobile).....	D  441 Mbl 40
Battery A, 105th Antiaircraft Artillery Automatic Weapons Battalion (self-propelled)...	A  105

Chart 26.—Examples—Antiaircraft Artillery.

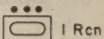
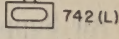
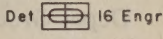
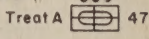
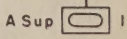
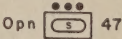
I Armored Corps.....	
1st Armored Division.....	
Combat Command A, 1st Armored Division.....	
1st Armored Division Trains.....	
Transportation Platoon, Headquarters Com- pany, 1st Armored Reconnaissance Bat- talion.....	
Assault Gun Platoon, Headquarters Company, 1st Battalion, 1st Armored Regiment.....	
Company A, 1st Armored Regiment.....	
1st Tank Group.....	
742d Tank Battalion (light).....	
6th Armored Artillery Group.....	
16th Armored Engineer Battalion.....	
Medical Detachment, 16th Armored Engi- neer Battalion.....	
6th Armored Infantry Regiment.....	
Assault Gun Platoon, Headquarters Company, 1st Battalion, 6th Armored Infantry Regi- ment.....	
Treatment Platoon, Company A, 47th Ar- mored Medical Battalion.....	
Company A, Supply Battalion, 1st Armored Division.....	
Operations Platoon, 47th Armored Signal Company.....	

Chart 27.—Examples—armored.

First Air Force.....		First
IV Fighter Command.....		IV Fi
18th Fighter Wing.....		18 Fi
4th Reconnaissance Group.....		4 Rcn
5th Bombardment Squadron (heavy).....		5 Bomb (H)
54th Troop Carrier Group.....		54 Tr Carr
66th Service Squadron.....		66 Serv
12th Glider Squadron.....		12 Gli
88th Reconnaissance Squadron.....		88 Rcn
Air Support Control B, 8th Air Support Communications Squadron.....	 B	8 A Spt Com
5th Photo Reconnaissance Squadron.....		5 Ph Rcn
16th Depot Repair Squadron, 15th Air Depot Group.....	 16 Rep	15 A Dep
20th Air Base Security Battalion.....		20
23d Signal Company, Wing.....		23 Wg
Company C, 321st Engineer Aviation Battalion.	 C	321

Chart 28.—Examples—Army Air Forces.

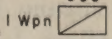
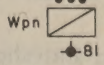
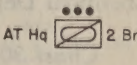
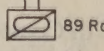
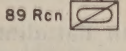
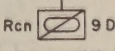
Machine Gun Platoon, Troop A, 5th Cavalry . . .	 5
Caliber .50 Machine Gun Section, Troop A, 5th Cavalry	 5
1st Platoon, Weapons Troop, 14th Cavalry	 14
Mortar Platoon, Weapons Troop, 14th Cavalry .	 14
Troop E, 1st Reconnaissance Squadron, Mechanized	 1 Rcn
2d Platoon, Troop A, 4th Cavalry, Mechanized .	 4
Antitank Platoon, Headquarters Troop, 2d Cavalry Brigade	 2 Brig
1st Tank Platoon, Troop E, 1st Reconnaissance Squadron	 1 Rcn
5th Cavalry Group, Mechanized	 5
89th Cavalry Mechanized Reconnaissance Squadron:	
Acting alone	 89 Rcn
Acting as part of 5th Cavalry Group	 5
Reconnaissance Troop (Mechanized) 9th Cavalry Division	 9 Div
1st Cavalry Division	 1
Command Post, 5th Cavalry	 5
Observation Post, 9th Cavalry	 9
Park, Mechanized Cavalry Group	 Prk

Chart 29.—Examples—Cavalry.

2d Platoon, 1st Chemical Company, Service Aviation.....	2		1 Serv Avn
10th Chemical Company, Maintenance			10 Maint
Company B, 2d Separate Chemical Battalion.....	B		2 Bn (Sep)
3d Battalion, 901st Chemical Regiment.....	3		901
Proposed Chemical Warfare Supply Point, IV Corps.....			IV
Chemical Depot, First Army.....			First

Chart 30.—Examples—Chemical Warfare Service.

Searchlight Battery, 104th Coast Artillery, Harbor Defense Type A.....			104 HD (A)
912th Coast Artillery (Railway).....			912 Ry
57th Coast Artillery (155-mm gun).....			57 CA 155
4th Battalion, 241st Coast Artillery, Harbor Defense, Type C.....	4		241 HD (C)
Command Post, Battery E, 248th Coast Artillery, Harbor Defense, Type B.....	E		248 HD (B)

NOTE.—For Antiaircraft Artillery Symbols see chart 26.

Chart 31.—Examples—Coast Artillery Corps.

Company A, 2d Engineer Combat Battalion.....	A		2
8th Engineer Squadron.....			8
Company A, 16th Armored Engineer Battalion...	A		16
Motorized Company, 126th Engineer Mountain Battalion.....	A		126 Mtn
Company B, 905th Engineer Heavy Ponton Battalion.....	B		905 Hv Pon
Parachute Company, 307th Airborne Engineer Battalion.....	Pcht		307
2d Platoon, Company B, 28th Engineer Aviation Battalion.....	2 B		28
2d Platoon, 70th Engineer Light Ponton Company.....	2		70 L Pon
Engineer Depot Number 2, First Army.....	2		First
Proposed Engineer Park, II Army Corps....	Prk		II
2d Platoon, Company B, 84th Engineer Camouflage Battalion.....	2 B		84 Cam
2d Platoon, Photomapping Company, 660th Engineer Topographic Battalion.....	2 B		660 Topo
1st Platoon, 195th Engineer Dump Truck Company.....	1		195 Dp Trk
2d Platoon, 391st Engineer Depot Company..	2		391 Dep
Company B, 801st Engineer Water Supply Battalion.....	B		801 W Sup
Second Boat Platoon, Company A, 531st Engineer Boat and Shore Regiment.	2 Bt A		531 Bt a Shore
Pioneer Platoon, Company D, 591st Engineer Boat and Shore Regiment..	Pion D		591 Bt a Shore

Chart 32.—Examples—Corps of Engineers.

Battery F, 2d Field Artillery Battalion.....	F		2
Headquarters Battery, 1st Division Artillery...	Hq		1 Div
Ammunition Train, 82d Field Artillery Battalion (horse).....	Am Tn		82 H
Headquarters and Headquarters Battery, 4th Field Artillery Battalion (Pack).....	Hq		4 Pk
Gasoline Section, Service Battery, 54th Field Artillery (105-mm Howitzer, armored)...	▼ Serv		54 105
8th Field Artillery Battalion.....			8
Headquarters and Headquarters Battery, 11th Field Artillery Brigade.....	Hq		11 Brig
2d Section, Battery B, 71st Field Artillery Battalion, horse-drawn.....	2 B		71 H-Dr
Maintenance Section, Battery C, 98th Field Artillery Battalion (75-mm Howitzer, Pack).....	Maint C		98 Pk 75
Battery B, 1st Field Artillery Observation Battalion.....	B		1 Obsn
74th Field Artillery Brigade.....			74
125th Field Artillery Parachute Battalion.....			125 Pcht
131st Glider Field Artillery Battalion.....			131
18th Field Artillery Group.....			18
10th Armored Field Artillery Group.....			10
Forward Observation Post, Battery A, 1st Field Artillery Battalion.....	A		1

Chart 33.—Examples—Field Artillery.

Headquarters Company, 29th Infantry	Hq		29
Intelligence and Reconnaissance Platoon, Headquarters Company, 19th Infantry	I & R		19
Maintenance Section, Transportation Platoon, Service Company, 5th Infantry	Maint		5
Kitchen and Baggage Train, 29th Infantry	Ki a Bag		29
1st Platoon, Antitank Company, 4th Infantry	1 AT		4 37
1st Cannon Platoon, Headquarters Company 6th Infantry	1 Cn		6 105
Ammunition and Pioneer Platoon, Headquar- ters Company, 3rd Battalion, 10th Infantry	A & P 3		10
Weapons Platoon, Company A, 14th Infantry	Wpn A		14
60-mm Mortar Section, Company B, 15th Infantry	B		15 60
Light Machine-Gun Section, Company E, 17th Infantry	E		17 L
Machine Gun Section, 2d Platoon, Company D, 20th Infantry	2 D		20 M
502d Parachute Infantry			502 Pcht
22d Motorized Infantry			22 M1z
Company A, 41st Armored Infantry	A		41
Observation Post, 81-mm Mortar Platoon, Com- pany D, 23d Infantry	D		23 81
Proposed regimental Ammunition Supply Point, 27th Infantry			27

Chart 34.—Examples—Infantry.

Headquarters and Service Company, 1st Medical Regiment.....	H&S 	1
Clearing Company D, 8th Medical Battalion....	D 	8
2d Platoon, Company A, 105th Medical Ambulance Battalion.....	2 A 	105
3d Platoon, Company A, 47th Medical Battalion Armored.....	3 A 	47
Clearing Platoon, Veterinary Troop, 1st Medical Squadron.....	3 Vet 	1
First Army Medical Depot.....	XXXX 	First
1st Battalion Section, Medical Detachment, 175th Infantry.....	1 Bn 	175 Inf
Battalion Aid Station, 1st Battalion, 4th Infantry.....	1 	4 Inf
Ambulance Loading Post.....		ALP
Collecting Station, 1st Division.....	XX 	1 Coll
11th Evacuation Hospital.....	XXXX 	11 Evac
Clearing Station, I Corps.....	XXX 	I Clr
Hospital Train.....		
Veterinary Clearing Station, First Army.....	XXXX 	First Clr
5th Platoon, 12th Veterinary Company.....	5 	12
901st Veterinary Evacuation Hospital.....	GHQ 	901 Evac

Chart 35.—Examples—Medical Department.

2d Ordnance Company, Heavy Maintenance (Army).....		2 Hv Maint
3d Ordnance Company, Heavy Maintenance (Tank).....		3 Hv Maint (Tk)
Service Section, 28th Ordnance Company (Medium Maintenance).....	Serv 	28 M Maint
Magazine Platoon, 51st Ordnance Company (Ammunition).....		51 Am
3d Platoon, 95th Ordnance Company, Railway Artillery Maintenance.....	3 	95 Maint (Ry)
Company B, 19th Ordnance Battalion (Armored).....	8 	19
Headquarters and Supply Section, 105th Ordnance Company (Medium Maintenance).....	H a S 	105 M Maint
Service Platoon, 73d Ordnance Company (Depot).....	Serv 	73 Dep
721st Ordnance Company (Aviation Air Base).....		721 Avn A B
1st Ordnance Battalion (Medium Maintenance).....		1 M Maint
1st Platoon, 104th Ordnance Evacuation Company.....	1 	104 Evac
319th Ordnance Maintenance Company, Antiaircraft.....		319 Maint (AA)
7th Ordnance Maintenance Battalion, Motorized.....		7 Maint (Mtz)
61st Ordnance Maintenance Company, Airborne.....		61 Maint
419th Ordnance Platoon, 531st Engineer Special Brigade.....	419 	531 AE

Chart 36.—Examples—Ordnance Department.

Class I Supply Point, Third Army, proposed . . .	XXXX  Third
Class III Railhead, Third Army, proposed . . .	XXXX  Third Rhd
Second Army Quartermaster Depot Number 1 (Class III)	XXXX 1  Second
Third Army Quartermaster Depot No. 2	XXXX 2  Third
III Corps Quartermaster Park, proposed	XXX Prk  III
Truckhead, Class I Supply, Third Army, proposed	XXXX  Third Trk Hd
Salvage Collecting Point, 3d Division, pro- posed	Salv Coll  XX 3
105th Quartermaster Car Company	 105 Car
2d Platoon, Company K, 48th Quartermas- ter Regiment (Truck)	2 K  48 Trk
Pack Troop, 16th Quartermaster Squadron . . .	E Pk  16
681st Quartermaster Battalion (Sterilization) . .	 681 Ster
Company A, 203d Quartermaster Battalion (Gasoline Supply)	A  203
Company D, 94th Quartermaster Battalion (Bakery)	D  94 Bkry
Company A, Supply Battalion, 1st Armored Division	A Sup  1

Chart 37.—Examples—Quartermaster Corps.

Headquarters Platoon, Company A, 51st Signal Battalion.....	Hq A  51
Radio Operation Platoon, Headquarters and Headquarters Company, 51st Signal Battalion.....	Rad Opn  51
Teletypewriter Operation Platoon, Company B, 57th Signal Battalion.....	Tt Opn B  57
59th Signal Construction Battalion.....	 59 Cons
Installation and Maintenance Platoon, Company B, 64th Signal Operation Battalion.....	IaM B  64 Opn
Command Post Section, Message Center Platoon, Headquarters Company, 59th Armored Signal Battalion.....	CP Msg Cen  59
Radio Intelligence Platoon, Company A, 318th Signal Battalion (Aviation), Air Support Command.....	Rad Int A  318
Teletypewriter Operation Platoon, 263d Signal Operation Company, Separate.	Tt  263 Opn
83d Signal Troop, 1st Cavalry Division.....	83  1
93d Signal Company, 421st Engineer Special Brigade.....	93  421 AE
365th Airborne Signal Company.....	 365
20th Signal Fixed Radio Station Company.....	 20 Fxd Rad Sta
10th Signal Mobile Photographic Laboratory Unit.....	 10 Mbl Photo Lab
3d Intercept Platoon, 318th Signal Radio Intelligence Company.....	3  318 Rad Int

Chart 38.—Examples—Signal Corps.

Mobile Direction Finding Section,
 Position Finding Platoon, 318th
 Radio Intelligence Company..... Mbl  318 Rad Int
 1st Combat Platoon, 281st Signal Pigeon
 Company..... I  281 Pgn
 105th Signal Photomail Company.....  105 V
 Headquarters and Headquarters Com-
 pany, Composite Battalion, 2d Signal
 Aircraft Warning Regiment..... Hq Comp  2 AW

Chart 38.—Examples—Signal Corps—Continued.

Headquarters, 12th Tank Destroyer Group.....  12
 Destroyer Platoon, Company A, 657th Tank
 Destroyer Battalion (Self propelled)... Dest A  657(SP)
 827th Tank Destroyer Battalion (Towed)...  827 (T)
 Pioneer Platoon, Company D, 657th Tank
 Destroyer Battalion..... Pion D  657
 2d Reconnaissance Platoon, Company D,
 657th Tank Destroyer Battalion..... 2 Rcn D  657
 Operations Platoon, Headquarters Company,
 12th Tank Destroyer Group..... Opn  12 Gp

Chart 39.—Examples—Tank Destroyer.

Headquarters, Military Railway Service	 MRS
707th Railway Grand Division	 707 GD
714th Railway Operating Battalion	 714 Ry Op
753d Railway Shop Battalion	 753 Ry Sh
Headquarters and Headquarters Company, 12th Port	Hq  12 P
194th Port Company	 194 P
Transportation Corps, Water Division	 W
Transportation Corps, Rail Division	 R
Transportation Corps, Highway Division	 H
Transportation Corps, Transit Storage Division	 TS
Transportation Corps, Traffic Control Division	 TC
Consolidating Station	C Sta 
Holding and Reconsignment Point	H&RP 
Port Agency	PA 
Port of Embarkation	PE 

Chart 40.—Examples—Transportation Corps.

PART III

MILITARY ABBREVIATIONS

CHAPTER 10

LIST OF MILITARY ABBREVIATIONS

28. GENERAL. This chapter is concerned primarily with abbreviations found only in Army field work.

29. DATES AND HOURS. a. Dates. Dates are written with the day preceding the name of the month, thus: 15 Jan 1943.

b. Time. Time is indicated according to the 24-hour clock system, in four-digit numbers, the first two digits representing the hour, the second two digits the minutes.

Examples:

0001 means 1 minute after midnight.

0630 means 6:30 in the morning.

1500 means 3:00 in the afternoon.

c. Dates with hours. Dates with hour designations are written as follows:

0630, 15 Jan 1943.

A six digit number may be used, in which case the month is assumed to be the current one. The first two digits indicate the day of the month, and the last four the hour, as explained above. For example: 150630 means 6:30 in the morning of the 15th day of the current month.

d. Greenwich time. If the time is based on Greenwich rather than on local time, the letter "Z" is placed after the hour designation. For example:

0630Z

150630Z

30. LIST OF ABBREVIATIONS AND ITS USES. a.

Kinds of abbreviations. This manual contains abbreviations authorized for use in *field work*, such as field orders, field maps, and messages. For abbreviations used in administrative work, see AR 850-150. In addition to those on the following list the Army is also authorized to use common abbreviations that are generally accepted, such as ft for foot.

b. Capitalization. All abbreviations used in field work have a capitalized initial letter.

c. Punctuation. All abbreviations used are written without periods.

List

A

acting	Actg
adjutant (1st staff section, brigades and lower units)	S-1
administrative (orders or officer) . . .	Adm (O)
advance	Adv
advance guard	Adv Gd
advance message center	Adv Msg Cen
aeronautic, aeronautical	Aero
agent	Agt
air	A
air base	AB
Airborne Command	A/B Comd
aircraft warning (company)	AW (Co)
air depot	AD
airdrome	Adrm

air field.....	AFld
air force.....	AF
air intelligence (section).....	A Int (Sec)
airport.....	Appt
airship.....	Ash
Air Support Command.....	ASPTC
Air Support Control.....	A Spt Contl or AS Contl
alternate target.....	Alt T
ambulance loading post.....	ALP
American Expeditionary Forces...	AEF
ammunition (train).....	Am (Tn)
ammunition supply point.....	ASP
amphibian truck (company).....	Amph Trk (Co)
Amphibious Command.....	Amph Comd
animal-drawn.....	Anl-Dr
antiaircraft artillery.....	AAA
Antiaircraft Artillery Intelligence Service.....	AAAIS
antiaircraft balloon.....	AA/B
antimechanized.....	AMecz
antipersonnel.....	APers
Antisubmarine Command.....	Antisub Comd
appendix.....	App
approximate.....	Approx
armored car.....	Armd C
armored.....	Armd
armorer.....	Armr
armor-piercing.....	AP
Army Engineer Service.....	A Engr Serv
Army headquarters.....	AHQ
Army medical (laboratory) (serv- ice).....	A Med (Lab) (Serv)
Army Postal Service.....	APS
Arsenal.....	Ars
artificer.....	Artif

artillery (brigade) (horse) (liaison officer).	Arty (Brig) (H) (LnO)
attack	Atk
automatic	Auto
automatic weapons	AW
aviation gasoline	Agas
aviation oil	Aoil

B

baggage	Bag
bakery	Bkry
balloon	Bln
Balloon Barrage Training Center . .	BBTC
barrage balloon (battalion)	Bar Bln (Bn)
base depot company	BD Co
base point	BP
basic	Bsc
Basic Field Manual	BFM
battalion (combat train)	Bn (C Tn)
battalion adjutant	Bn S-1
battalion beachhead	BBH
battalion intelligence officer	Bn S-2
battalion landing team	BLT
battalion plans and training officer .	Bn S-3
battalion supply officer	Bn S-4
battery commander	BC
battle reconnaissance	B Rcn
bench mark	BM
bicycle	Bcl
bill of lading	B/L
bivouac	Biv
blacksmith	Blksm
boat	Bt
boiler and smith shop company . . .	Blr & Sm Sh Co
bomber	Bmr
bomb line	BL

bomb service truck	BSTrk
boundary	Bd
bridge train (heavy) (light)	Br Tn (Hv) (L)
brigade	Brig
brigade adjutant	Brig S-1
brigade intelligence officer	Brig S-2
brigade plans and training officer	Brig S-3
brigade supply officer	Brig S-4
brigade headquarters	BHQ
Browning automatic rifle	BAR
bugler	Bglr
bulk storage petroleum	BSpet

C

camouflage	Cam
cannon (platoon)	Cn (Plat)
Carbine	Cbn
carpenter	Cptr
car repair company	Car Rep Co
cemetery	Cem
center, central	Cen
central interpretation unit	CIU
character	Char
chauffeur	Cfr
chemical agent, nonpersistent	G-NP
chemical agent, persistent	G-P
chemical mortar, 4.2-inch	4.2 Cml Mort
chief	C
chief of	Cof
Chief of Transportation	CofT
Chief Signal Officer	CSigO
civil (or civilian)	Civ
Class I supplies	Cl I Sup
clearing company	Clr Co
close-in	CL
clothing	Clo

coast defense	CD
coastal frontier	CF
collecting (company) (point) (sta- tion).	Coll (Co) (Pt) (Sta)
combat (car) (zone)	C (Car) (Z)
combat command	CC
combat crew	CCr
combat group	C GP
combat team	CT
command and navigation boat . . .	C&N Bt
commercial	Coml
commissary	Comm
communication	Com
communications zone	Com Z
composite	Comp
computer	Cmptr
concentration	Conc
consolidating station	C Sta
construction	Cons
contact party	Con Pty
continuous wave	CW
control	Contl
convalescent (hospital)	Conv (Hosp)
copilot	CoP
counterreconnaissance	C-Rcn
crew chief	CrC
crossroads	CR
current	Cur

D

dead reckoning	D/R
delivered or delivery	Delv
demolition (squad) (officer)	Dml (Sqd) (O)
depot	Dep
deserted or desertion	Des
detail	Dtl

direction finding.....	D/F
director.....	Dir
direct support.....	D/S
distant.....	Ds
distant surveillance section.....	DS Sec
district engineer officer.....	DEO
district transportation officer.....	DTO
division ammunition office.....	DAO
division beachhead.....	DBH
division headquarters.....	DHQ
division service area.....	DSA
draftsman.....	Drftm
drawn.....	Dr
driver.....	Dvr
Duty officer.....	DO

E

electrical or electrician.....	Elec
element.....	Elm
eliminate.....	Elim
embarkation.....	Emb
emplacement.....	Empl
enemy aircraft.....	E/A
engine house company.....	Eng Hse Co
entrucking point.....	EP
erecting and machine shop company.....	Erect & Mach Sh Co
estimated time arrival.....	ETA
evacuation.....	Evac
exclusive.....	Excl

F

field laboratory.....	F Lab
field remount depot.....	F Rmt Dep
field train.....	F Tn
fighter.....	Fi
fighter control area.....	FCA

film strip	FS
filter	Fil
filter center	Fil Cen
final protective line	FPL
fire-direction center	Fdc
first lieutenant	1st Lt
fixed	Fxd
flash ranging	FR
forward interpretation unit	FIU
from	Fr
furnished	Furn

G

garage	Gar
gas, nonpersistent	G-NP
gas, persistent	G-P
gasproof	G-Pf
general dispensary	Gen Disp
general hospital	Gen Hosp
general service schools	GSS
general service	Gen Serv
general support	G/S
Geological Survey	Geol Surv
glider	Gli
grand division (railway)	Gr Div (Ry)
graves registration (battalion) (com- pany)	Gr Reg (Bn) (Co)
ground	Grd
ground control interception	GCI
groupment	Gpmt
gun	G

H

half-track	H-Trk
harbor	Har
Harbor Boat Service	HBS

harbor craft (company)	Har Cft (Co)
harbor defense command	HDC
headquarters	Hq
headquarters and service (battery) (company) (troop)	H&S (Btry) (Co) (Tr) or Hq & Serv (Btry) (Co) (Tr)
heavy weapons company	Hv Wpn Co
highway	Hwy
highway transportation officer	HTO
holding and reconsignment point	H & RP
horizontal control operator	HCO
horse	H
horse-drawn	H-Dr
hospital	Hosp

I

Impregnating	Impreg
Include	Incl
inclusive	Incl
indicated air speed	IAS
information	Info
information center	IC
initial beachhead	IBH
initial point	IP
instrument	Inst
intelligence	Int
intelligence officer	S-2 or Int O
interceptor	I
interpreter	Intpr

J

join	Jn
----------------	----

K

killed	Kd
------------------	----

L

labor.....	Lbr
laboratory.....	Lab
landing craft, mechanized.....	LCM
landing craft, personnel.....	LCP
landing craft, vehicle.....	LCV
landing craft, vehicle-personnel....	LCVP
landing craft, tank.....	LCT
land mine.....	LM
last resort target.....	LRT
legislative.....	Leg
liaison.....	Ln
lieutenant colonel.....	Lt Col
lieutenant general.....	Lt Gen
light machine gun.....	LMG
lights.....	Lgts
linemen.....	Lmn
line of departure.....	LD
lines of communication.....	LC
long wheelbase.....	LWB
low altitude.....	LA

M

machinist.....	Machst
main line of resistance.....	MLR
main supply road.....	MSR
maintenance of equipment.....	Maint of E
maintenance of way.....	Maint of W
major general.....	Maj Gen
material.....	Mat
medium (tank).....	M (Tk)
meterologist.....	Metgst
military attaché.....	Mil Att or MA
Military Railway Service.....	MRS
minimum altitude.....	Min Alt
mobile.....	Mbl
Mobilization Training Program ...	MTP

motorcyclist	Mtrclt
motor gasoline	Mgas
motor oil	Moil
motor-tricycle	Mtricl
move	Mv
movement	Mvmt
musician	Mus

N

navigation (officer)	Nav (O)
net control station	NCS
not yet returned	NYR
number	No

O

observation post	OP
officer in charge	O/C
one-pounder	1 Pdr
operation	Opn
operator	Opr
order, orders	O
orderly	Odly
outpost line	OPL
outpost line of resistance	OPLR

P

parachutist	Pchst
park	Prk
party	Pty
patrol boat	PAT Bt
photograph or photographic	Photo
pigeon	Pgn
pioneer and demolition section	P & D Sec
plans and training officer	S-3
platoon	Plat
point	Pt
ponton	Pon
portable	Ptbl

port agency	PA
port of debarkation	PD
port transportation officer	PTO
postal (section)	Post (Sec)
primary target	PT
principal	Princ
prisoner	Pris
proving ground	PG

Q

quartermaster supply officer	QMSO
--	------

R

radio and panel section	R & P Sec
radio detector equipment	RADAR
radio intelligence (company)	Rad Int (Co)
railhead	Rhd
railhead officer	RHO
railroad	RR
railroad transportation officer	RTO
Railway Grand Division	Ry GD
railway traffic officer	R Traf O
range officer	Rg O
ration distributing point	RDP
railway shop battalion (Diesel)	Ry Sh Bn (Dsl)
rear (echelon) (guard)	Rr (Ech) (Gd)
received	Recd
reconnaissance (long range) (medium range).	Rcn (LR) (MR)
reconstruction park	Recons Prk
recreation	Rec
reduce or reduced	Rd
refrigeration	Ref
regimental adjutant	Regtl S-1
regimental beachhead	RBH
regimental headquarters	RHQ

regimental intelligence officer	Regtl S-2
regimental orders	RO
regimental plans and training officer.	Regtl S-3
regimental reserve line	RRL
regimental supply officer	Regtl S-4 or RSO
regulating (station)	R (Sta)
reinforced	Reinf
rejoined	Rejd
release point	Rel Pt
rendezvous point	RDV Pt
repair shop company	Rep Sh Co
replacement	Repl
report, reporting	Rpt
reproduction	Repro
rescinded	Resc
Reserve	Res
retired	Ret
rifle (Company)	R (CO)
road bend	RB
road junction	RJ
road space	RS
rocket	Rkt
rocketeer	Rktr
rocket launcher	RL

S

sales Commissary (Battalion) (Company)	Sales Comm (Bn)(Co)
salvage	Salv
sanitary	Sn
schedule	Scd
scout	Sct
scout car	Sct C
searchlight	SL
second lieutenant	2d Lt

self-propelled	SP
self-propelled mount	SPM
semiautomatic rifle	SAR
semimobile	Sem
sentence	Sent
sentenced	Sentd
shipment	Shipt
shipping ticket	S/T
shop (battalion)	Sh (Bn)
short wheelbase	SWB
signal	Sig
signal operations instructions	SOI
small arms	SA
small boat (company)	S BT (Co)
sound and flash (battalion)	S&F (Bn)
sound locator	S-L
sound ranging	SR
specialist	SpecI
special messenger	Sp Msgr
special troops	Sp Trs
staff	Stf
staging area (company)	St Ar (Co)
stenographer (s)	Steno
sterilization	Ster
stevedore	Stev
straggler line	Strag L
submarine	Subm
supply	Sup
supply point	SP
support	Spt
support line	SL
surgeon	Surg
surgical (hospital)	Surg (Hosp)
surrender or surrendered	Surr
survey	Surv

switchboard	Sb
switching central	Sw C

T

tactical	Tac
Tank Destroyer	TD
technical	Tech
telegram	Telg
telegraph printer	Tgp
teletypewriter	Tt
teletypewriter center	Ttc
theater headquarters	THQ
time lengths	TL
toolmaker	Tlmkr
topographic, topographical	Top or Topo
torpedo	Tor
tractor	Trac
tractor-drawn	Tr-Dr
traffic	Traf
traffic control station	TCS
train commander	Tn Co
training circular	TC
training film	TF
training unit	TU
transit storage	TS
transport, transportation	T or Trans
transportation company	T Co
trench mortar	T Mort
troop (s)	Tr (s)
troop carrier (squadron)	Tr Carr (Sq)
truck-drawn	Trk-Dr
truck head	Trk Hd

U

unit of fire	U/F
Unit Training Center	UTC

United States Army Transport USAT

V

vertical control operator VCO
very low altitude VLA
visual Vis
volunteer Vol

W

warrant Wrnt
warrant officer WO
water supply W Sup
water tank (battalion) (train) W Tk (Bn) (Tn)
weapon carrier Wpn Carr
weapons (troop) (platoon) Wpn (Tr) (Plat)
welder Wldr
winch Wn
wrecker Wkr

Z

zone of fire Z/F
zone transportation officer ZTO

APPENDIX

LIST OF REFERENCES

Maps and Mapping.....	AR 300-15
Authorized Abbreviations and Symbols for Military Records and Administrative Special Orders Except Field Orders and Messages.....	AR 850-150
Coast Artillery, Reference Data.....	FM 4-155
Engineer, Reference Data.....	FM 5-35
Obstacle Technique.....	FM 5-30
Carpentry.....	TM 5-226
Topographic Drafting.....	TM 5-230
Field Artillery, Reference Data.....	FM 6-130
Medical Department, Reference Data.....	FM 8-55
Reference Data.....	TM 11-462
Armored Force Field Manual, Tactics and Technique.....	FM 17-10
List of Publications for Training.....	FM 21-6
Elementary Map and Aerial Photograph Reading.....	FM 21-25
Advanced Map and Aerial Photograph Reading.....	FM 21-26
Sketching.....	FM 21-35
Soldier's Handbook.....	FM 21-100
Infantry Drill Regulations.....	FM 22-5
Signal Communication.....	FM 24-5
Motor Transport.....	FM 25-10
Foreign Conventional Signs and Symbols...	FM 30-22

INDEX

Abbreviations:	Chart	Page
Engineer bridge and road classification	19	50
Hydrographic		30
Military		62
Topographic		28
Aeronautical chart symbols	7	17
Aids to navigation, chart	6	15
Airborne	13	37
Aircraft patrol area	15	42
Air activities, chart	15	39
Air Forces, Army:		
Examples, chart	28	66
Unit symbols	13, 14	36, 38
Airports:		
Aeronautical chart symbols	7	17
Army Air Forces symbols	15	39
Air routes	7	18
Airship	15	40
Alternate one-way traffic	24	59
Alternate target, aircraft	15	42
Anchorage prohibited	6	16
Anchorage	6	16
Antiaircraft activities	16	43
Antiaircraft artillery, examples	26	64
Antiaircraft defended area	15	41
Antiaircraft ship	15	41
Antipersonnel obstacles	21	52
Antitank guns	25	60
Antitank obstacles	21	52
Aqueducts	9	24
Armored:		
Examples, chart	27	65
Identifying symbol	13	36
Vehicles	25	61
Army	14	38
Arsenals	23	56
Artillery, Field:		
Examples, chart	33	70
Identifying symbol	13	36

	Chart	Page
Ascension point, balloon	15	40
Autogiro	15	40
Automatic rifle	25	60
Axis of signal communication, points on	22	55
Balloon	16	43
Balloon, barrage	15, 16	41, 43
Bamboo trees	4	10
Banana trees	4	10
Battalion	14	38
Battery	14	38
Beacons, air	7	17
Beacons, sea	6	15
Bluffs	3	8
Bomb line	15	41
Booby traps	21	53
Boundaries, marks, and monuments	12	27
Breakers along the shore	5	13
Breakwater	9	24
Bridges:		
On engineer maps	19	50
On topographic maps	9	23
Destroyed	21	54
Brigade	14	38
Buildings, urban areas, chart	10	25
Buoys	6	15
Cactus trees	4	10
Canal	9	24
Caution area, air maps	7	18
Cavalry:		
Examples, chart	29	67
Identifying symbol	13	37
Cemetery	11	26
Chemical warfare activities	18	46
Chemical Warfare Service:		
Examples, chart	30	68
Identifying symbol	13	37
Church	10	25
Cities	10	25
Civil airways	7	18
Cliff dwellings	10	25

Coast Artillery Corps:	Chart	Page
Examples, chart	31	68
Identifying symbols	13	37
Coke ovens	11	26
Color		2, 39
Combat command	14	38
Combat team	14	38
Command post	23	56
Communications zone	14	38
Company	14	38
Contours	3	7
Convoy	15	41
Coral reefs	5	12
Corn	4	11
Corps	14	38
Cultivated fields, general	4	11
Currents	5	14
Cypress swamp	4	9
Dam	9	23
Danger area, air maps	7	18
Danger line, limiting, hydrography	5	13
Dates and hours		78
Debarkation point	24	57
Defense area	17	45
Demolitions	21	52
Dense woods or jungle growth	4	9
Depression contours	3	7
Depth curves	5	14
Dikes	9	24
Direction finders	22	55
Dispatch route	24	59
Dispersal point, aircraft	15	40
Division	14	38
Dock	9	24
Dolphin	6	16
Drainage	2	4
Drydock	6	16
Dugouts	20	50
Eddies and whirlpools	5	13
Eel grass	5	13
Embarkation point	24	57

Engineers, Corps of:	Chart	Page
Examples, chart	32	69
Identifying symbols	13	37
Special symbols	19	50
Engineer activities	19	50
Entanglements, barbed wire	21	52
Evaporator, salt	5	13
Examples of symbols for military units	26-40	64
Falls and rapids	2	5
Fences, on topographic maps	11	26
Fences, barbed wire	21	52
Ferries	9	23
Field Artillery. (<i>See</i> Artillery.)		
Fighter aviation, limit of radius of action	17	44
Fills	3	7
Filter center	22	55
Fishing stakes	5	13
Fish weir	5	13
Flight	14	38
Floating drydock	6	16
Fords	9	23
Form lines	3	7
Fort	20	51
Fortified area	20	51
Foul ground	5	14
Free bombing area	15	41
Front-line boundary	17	44
Gas	18	46
General Headquarters	14	38
Glaciers	2	6
Grassland	4	11
Gravel	3	8
Gravel and rocks, shores	5	12
Group	14	38
Hachures	3	7
Hangar for airship	15	40
Headquarters	23	56

Highways:	Chart	Page
On air maps	7	20
On engineer reconnaissance maps	19	50
On topographic maps	8	21
Hospital	10, 23	25, 56
Howitzers	25	61
Hydrography, dangers, obstructions, chart	5	12
Ice-shelf limit	5	13
Identification of military units	13	36
Impassable road	24	59
Infantry, examples	34	71
Information center	22	55
Jetty	9	24
Jungle growth or dense woods	4	9
Kelp or eel grass	5	13
Laboratory, experimental center, or proving ground	23	56
Lakes and ponds	2	5
Land classification	4	9
Landing craft, special engineer	19	50
Last resort target, aircraft	15	42
Lava	3	8
Leader cable	6	16
Leader gear	21	53
Lettering		2
Levee	9	24
Lifesaving stations	6	15
Lighthouse	6	15
Light vessels	6	15
Limiting danger line, hydrography	5	13
Limiting point, military defense area	17	44
Limit of wheeled traffic	17	44
Line of communication	17	44
Line of departure	17	44
Lines of equal magnetic declination	7	18
Logged-off or burnt-off area	4	9
Machine guns	25	60
Main line of resistance	17	44
Mangrove trees	4	10
Marine mines	21	53

	Chart	Page
Marine nets	21	53
Marginal data	1	3
Marsh	4	9
Medical Department:		
Examples chart	35	72
Identifying symbol	13	37
Message center	22	55
Military police	13	37
Military units, identification	13	37
Military units, size	14	38
Mine or quarry	11	26
Mine detector	21	53
Mine dump	3	7
Mine, marine	21	53
Mines and mine fields	21	52
Mines, gas	18	46
Mine tunnel	11	26
Miscellaneous topographic symbols	11	26
Miscellaneous air navigation symbols	11	26
Mooring, water	6	16
Mooring mast, airship	7, 15	18, 40
Moraine	3	8
Mortars	25	61
Mud	5	13
Navigation, aids to	6	15
Navigation symbols, air	7	17
No bottom at 50 fathoms	5	14
Observation aviation, limit of zone of reconnaissance	17	44
Obstacles	21	52
Oil or gas wells:		
On topographic maps	11	26
On field sketches	24	58
Oil or gas tanks:		
On topographic maps	11	26
On field sketches	24	57
One-way traffic	24	59
Orchard	4	10
Ordnance Department:		
Examples, chart	36	73
Identifying symbol	13	37

	Chart	Page
Outpost line	17	44
Overfalls and tide rips	5	13
Overflowed land	4	9
Palm trees	4	10
Palmetto trees	4	10
Paten slip	6	16
Patrol area, aircraft	15	42
Petroleum supply	24	58
Pillboxes	20	51
Pilot station	6	16
Pine trees	4	10
Platoon:		
Defense area	17	45
Identifying symbol	14	38
Point, any labeled	23	56
Posts	23	56
Primary target, aircraft	15	42
Prisoner of war inclosure	17	44
Procurement district, headquarters	24	57
Prohibited area, air maps	7	18
Prominent elevation, air maps	7	18
Prospect, mine	11	26
Quartermaster Corps:		
Example, chart	37	74
Identifying symbols	13	37
Radar station	15	40
Radio devices	6, 7, 16	16, 19, 43
Railroad crossings	8, 24	22, 58
Railroads:		
On air maps	7	20
On topographic maps	8	21
Rally point, aircraft	15	42
Range or bearing line	6	16
Reception center	23	56
References		94
Regiment	14	38
Relief	3	7
Rendezvous point, aircraft	15	42

	Chart	Page
Replacement training center.....	23	56
Reserved route.....	24	59
Revetment for airplane.....	15	40
Revetment, river.....	9	24
Rice field.....	4	11
Rifle grenade.....	25	60
River gage.....	9	24
River works.....	9	23
Road block.....	21	54
Road classification, engineer.....	19	50
Roads:		
On air maps.....	7	20
On topographic maps.....	8	21
Roads, railroads, and wire communication.....	8	21
Roadside flight strip.....	7	17
Rock, under water or awash.....	5	13
Rocket launcher.....	25	60
Rocky land.....	3	8
Rocky ledges.....	5	12
Rotary traffic.....	24	59
Route markers.....	24	59
Ruins.....	10	25
Salt marsh.....	4	9
Sand and sand dunes.....	3	8
Scale.....	1	3
Schoolhouse or university.....	10	25
Seaplane ports.....	7	17
Searchlight.....	16	43
Searchlight belts.....	15	41
Section:		
Defense area.....	17	45
Identifying symbol.....	14	38
Self-propelled guns.....	25	61
Service command.....	14	38
Shaft, mine.....	11	26
Shelters.....	20	51
Shores and shore lines.....	5	12
Signal Corps:		
Examples, chart.....	38	75
Identifying symbols.....	13	36

	Chart	Page
Size of military units	14	38
Snow field	2	6
Special buildings, posts, and centers	23	56
Special engineer landing craft	19	50
Squad:		
Defense area	17	45
Symbol	14	38
Squadron	14	38
Straggler line	17	44
Streams	2	4
Submarine	15	42
Sugarcane	4	11
Sunken wreck	5	14
Supply, transportation, traffic	24	57
Supply point	24	57
Switching centrals	22	55
Tailings	3	7
Tanks	25	61
Tank barriers and tank traps	21	54
Tank Destroyer:		
Examples, chart	39	76
Identifying symbol	13	37
Target areas, mortars, and artillery	17	45
Targets, aircraft	15	42
Teletypewriter central	22	55
Tidal currents	5	14
Tidal flats	5	13
Tide rips	5	13
Time symbols		78
Town	10	25
Track line	6	16
Traffic and traffic control	24	58
Trains (supply, motor)	24	58
Transmission line:		
On air Maps	7	18
On topographic maps	8	21
Transportation corps:		
Examples, chart	40	77
Identifying symbol	13	37
Trenches	20	50
Troop, cavalry	14	38

	Chart	Page
Tropical grass.....	4	11
Tunnel.....	8, 24	21, 59
Turnaround.....	24	59
Two-way traffic.....	24	59
University or schoolhouse.....	10	25
Veterinary crops, identifying symbol.....	13	37
Village.....	10	25
Vineyard.....	4	11
Washes.....	3	8
Water gage.....	6	16
Waterhole.....	2	5
Weapons.....	25	60
Weather Bureau Signal Station.....	6	16
Weather station.....	23	56
Whirlpools and eddies.....	5	13
Windmill.....	10	25
Wing.....	14	38
Woodland.....	4	9
Wrecks and wreckage.....	5	14



REMARKS

REMARKS

REMARKS

REMARKS

